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**ENVIRONMENTAL BASELINE SURVEY
PHASE 4
HARRIS DRACON DIVISION FACILITY
9541 MASON AVENUE
CHATSWORTH, CALIFORNIA 91311**

Prepared for:

**Harris Dracon Division Facility
9541 Mason Avenue
Chatsworth, California 91311**

April 24, 1991

Prepared by:

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GERAGHTY & MILLER, INC.

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INTRODUCTION

Geraghty & Miller, Inc. (Geraghty & Miller) was retained by the Harris Corporation (Harris) in November 1990, to conduct a baseline environmental survey at the Harris Dracon Division (Harris Dracon) facility located at 9541 Mason Avenue, in the City of Chatsworth, County of Los Angeles, California. The location of the subject property is shown in Figure 1. The environmental baseline survey was conducted in four phases. Phases 1 through 3 were conducted in accordance with the scope of work outlined in Geraghty & Miller's proposal dated November 5, 1990; these phases were limited to analysis of existing data obtained from the subject facility, without conducting environmental sampling or monitoring. The primary goals of the initial three phases were to evaluate on-site conditions and hazardous waste/hazardous material handling practices to identify areas that may be of potential environmental concern to Harris or Harris Dracon.

The results of Phases 1 through 3 were presented in a separate document entitled "Environmental Baseline Survey, Phase 1 through Phase 3, Harris Dracon Division Facility, 9541 Mason Avenue, Chatsworth, California" (Geraghty & Miller, 1991). Five areas of potential environmental concern were identified in Phases 1 through 3 of the investigation. As a result, further investigation of these areas by environmental sampling and testing was recommended. This report summarizes the methodologies and findings of the Phase 4 Field Investigation conducted at Harris Dracon during January 1991.

OBJECTIVES

The primary objective of Geraghty & Miller's Phase 4 Field Investigation was to determine if soil in the five areas of potential environmental concern had been impacted by past or present chemical use at the subject facility. The presence of above-background levels of chemicals was to be determined through the collection and chemical analysis of soil samples. The Phase 4 investigation was designed to determine whether hazardous materials were present on or beneath the property; however, it was not designed to fully define the magnitude or extent of potential contamination.

SCOPE OF INVESTIGATION

The scope of the Phase 4 Field Investigation was strategized in consultation with Harris Dracon and Harris Corporation. The scope of the Phase 4 Field Investigation included the advancement of eight soil borings in five areas of potential environmental concern identified during Phases 1 through 3 (Figure 2). These areas were: 1) the clarifier area, 2) the Hazardous Waste Storage Area, 3) the loading dock sump, 4) the metal wipedown and compressor area, and 5) the Iridite area. Under the approved scope of work, sampling in the Iridite Area would be conducted only if cracks, fissures, blemishes, or other potential conduits were discovered in the Iridite Area floor. The number of samples collected from each borehole was finalized during these discussions.

BACKGROUND

The environmental setting, historical property usage, and current on-site conditions and practices are detailed in the Phase 1 through 3 report (Geraghty & Miller, 1991) and are summarized in the following paragraphs. The site facility layout is provided in Figure 2.

Harris Dracon's facility is a 50,900-square-foot, one-story building constructed of tilt-up concrete walls. The facility is located in an industrial complex that is bordered to the north by Superior Street, to the south by Plummer Street, to the east by Mason Avenue, and to the west by Cozycroft Avenue. The Harris Dracon building abuts another tilt-up building to the south. The adjoining building is occupied by an unrelated corporate firm. The surrounding area is a mixture of residential and industrial property.

Harris Dracon supplies the telecommunications industry with a wide variety of metal and plastic products. A large percentage of its operation is devoted to the manufacture of relay racks, cable runways, and sheet metal products. Many of the plastic items are used in the installation or repair of data lines. Harris Dracon's operations and processes include aluminum and steel fabrication and cleaning, and coating and injection molding of plastic parts.

FACILITY DESCRIPTION

Outside the main building, the subject property is 95 percent paved, with the exception of small landscaped areas on the east side of the building (Figure 2). Access to the Hazardous Waste Storage Area and the shipping and receiving areas is restricted; otherwise, access to the property is unrestricted. Drainage is to storm sewers.

Geraghty & Miller's Phase 1 through 3 investigation did not reveal any evidence that underground storage tanks were present at the subject site. There are no floor drains in the building. Reportedly, no water wells or dry wells exist on the site.

A clarifier with an associated sampling port is located on the east side of the building. The clarifier discharges to the City of Los Angeles Bureau of Sanitation industrial sewer system. Periodic water samples are collected from the clarifier sampling port by Harris Dracon to ensure that the discharged wastewater complies with its permitted limits for metal concentrations and pH. The clarifier area was identified as an area of potential environmental concern because of its use as a conduit for wastewater to pass to the City of Los Angeles sewer system.

A small sump is located in the loading dock area on the west side of the building. The location of the sump and the slope of the pavement suggest that if chemicals were inadvertently discharged or spilled at the loading dock, they would flow preferentially toward the sump in the loading area. Therefore, a soil sample was collected in this area.

Harris Dracon maintains a 250-gallon above-ground storage tank for 1,1,1-trichloroethane (TCA) used in its metal fabrication operation. This storage tank is located in the fenced, locked, and bermed Hazardous Waste Storage Area on the north side of the building. Wastes stored in this area include filter-cake sludge, empty paint drums, waste oil, cutting oil, and TCA.

Several areas along the northwest exterior of the building were selected for subsurface soil sampling. One part of this area is used for metal degreasing by wiping with TCA. To the

north of the metal wipe-down area is an air compressor. There is an area of damaged asphalt immediately west of the air compressor, an area west of the metal storage area where water collects, and an oil-stained area along the western wall of the building north of the compressor area.

In the Iridite area, aluminum components are cleaned and a chrome coating is applied to the surface. There are eight above-ground tanks, containing water, detergent, non-contact cooling water, caustic soda, sodium hydroxide, deoxidation solution, chromate, and a polyvinyl alcohol-based coating. On the east side of the Iridite area, process water was present in the bermed area during Geraghty & Miller's site inspection. In addition, process by-product was noted between the tanks (Geraghty & Miller, 1991). A subsurface pipeline leads from the Iridite area to the clarifier.

REGIONAL ENVIRONMENTAL SETTING

Harris Dracon lies within the San Fernando Valley Basin sub-area of the South Coastal Ground-Water Basin (DWR, 1975, 1980). The average well yield for the San Fernando Valley Basin is 1,220 gallons per minute (gpm), with maximum yields being 3,240 gpm (DWR, 1975). The ground-water surface elevation in the Chatsworth area ranges between 975 to 800 feet above mean sea level. The ground-water surface near Harris Dracon is approximately 95 feet below ground surface (Upper Los Angeles River Area (ULARA) Watermaster, 1990).

In the western part of the ULARA, the water tends to be of a calcium sulfate-bicarbonate type (ULARA Watermaster, 1990). Ground-water contamination has not been documented in properties adjacent to the site; however, leaking underground storage tank sites are located within 0.5 miles of the site (Geraghty & Miller, 1991).

Harris Dracon is located 0.75 miles east of Brown's Canyon Wash, 3.5 miles north of the Los Angeles River, and 2 miles east of the Chatsworth Reservoir. These surface water features are dry most of the year.

The local climate is semiarid. The San Fernando Valley typically receives an average of 16 inches of rainfall per year. For the past five years the area has been experiencing a drought. The average annual temperature is 64 degrees Fahrenheit. Wind speeds are generally northwesterly at 6 miles per hour (mph).

METHODOLOGY

The following plans, methodologies, and procedures were employed during the implementation of the Phase 4 Field Investigation.

HEALTH AND SAFETY PLAN

A site-specific Health and Safety Plan was prepared addressing safety issues that could be encountered during the field activities. The completed Health and Safety Plan is included as Appendix A. Prior to commencing drilling activities, all participating personnel were briefed on the scope of work, the hazards associated with materials that could potentially be encountered during drilling, safety equipment requirements, and other aspects of safety. All persons present in the drilling and sampling areas signed the site Health and Safety Plan.

Boring locations were selected to avoid potential contact with underground utilities. Prior to drilling, the Underground Services Alert (USA) Agency was contacted for utility clearance prior to beginning field work. All subsurface facilities in the specified work area were marked by USA's member companies.

FIELD METHODOLOGY

The soil-boring locations are shown on Figure 2. In the clarifier area, two borings were sited along the northeast side of the building: one near the midpoint of the underground pipeline leading from the Iridite Area to the clarifier, and one near the eastern side of the clarifier. One boring was sited at the northeast corner of the Hazardous Waste Storage Area on the northern

side of the facility. One boring was sited alongside the sump in the loading dock. Four borings were located along the northwestern side of the building: two in the metal wipe-down area and two in the compressor area. The number and location of these borings were decided in consultation with Harris Dracon and Harris Corporation.

All borings were performed by West Hazmat, Incorporated on January 7 and 8, 1991, using a CME-75 rig, except for boring B-8, which was drilled with the same CME-75 rig, but was then sampled with an AMS hand-auger/coring device. The CME-75 rig was equipped with eight-inch outside diameter, 2.5-inch inner diameter, hollow-stem augers. Augers were steam-cleaned prior to use and after each use. Soil samples were obtained from bore-holes using a five-foot-long, California modified split-spoon sampler (CMSS). The CMSS was then driven to the desired sampling interval by a hydraulically-operated, 140-pound hammer, dropping 30 inches for each blow.

Soil samples were collected in 6-inch long, 2.5-inch diameter, brass liner tubes inside the CMSS. Ten liners fit inside the CMSS. All sampling equipment was washed with Micro™ solution, then rinsed with tap water prior to sample collection.

Upon extraction from the sampler, the soil within the lower-most sampling tube was immediately sealed with Teflon™-lined caps, labeled, taped with electrical tape, and placed in a cooler with ice. These samples were utilized for laboratory analysis of chemical constituents.

The remainder of the core sample was examined to log the physical description of the soil and visually determine if any contamination was suspected. To test for the presence of organic vapors, approximately 5 cubic inches of this soil from near the base of the sample was placed into re-sealable plastic bags, with approximately 20 cubic inches headspace to allow for volatilization. The containers were then set aside at ambient air temperatures for approximately 15 minutes. The probe of an HNU™ P-101, 10.2 millielectronvolt photoionization detector (PID) was then placed inside the container and the concentration of organic vapors was

measured. The PID was calibrated with isobutylene according to manufacturer's instructions prior to field operations.

From each boring, one soil sample was collected for analysis. This soil sample was taken from the depth interval that was considered most likely to contain elevated concentrations of chemicals, based on discoloration or the presence of volatile organic vapors. If neither field test method suggested the potential presence of elevated chemical concentrations in the boring, the sample was collected at the base of the boring (generally 25 feet).

All of the drilling activities were observed by a geologist under the supervision of a Registered Geologist from Geraghty & Miller. Soil type was identified according to the Unified Soil Classification System and the ASTM method for the identification of soils in the field (ASTM D-2488). Soil type, HNUTM readings, and other observations were recorded on logs provided in Appendix B.

Following completion of soil-sampling activities, the borings were backfilled with Volclay grout to within 1.5 feet of the ground surface. The remaining interval was filled with bentonite chips and tap water and finished to grade with concrete.

LABORATORY METHODOLOGY

Following chain-of-custody protocols, an Enseco courier transported the samples in a refrigerated condition to Enseco-CRL in Garden Grove, California, following the completion of each field day. The completed chain-of-custody forms are provided in Appendix C. Enseco-CRL is certified by the state of California to perform EPA Methods 3050, 6010, 7061, 7471, 7741, and 8240. The modified EPA Method 8015 is not a certifiable analysis.

The analytical program is presented in Table 1. All soil samples were analyzed for concentrations of Volatile Organic Compounds (VOCs) using EPA Method 8240. This method is based upon gas chromatographic/mass spectrometric (GC/MS) procedure. These analyses

were performed to test for the presence of halogenated or nonhalogenated organics, such as TCA or benzene, in the shallow soil layers below the areas of environmental concern identified in Phases 1 through 3.

All soil samples were also analyzed for Total Extractable Petroleum Hydrocarbons (TEPH) using test method DHS-ES. This is a modified EPA Method 8015, calibrated to diesel (California Leaking Underground Fuel Tank Task Force, 1988). These analyses were performed to test for the presence of low-boiling point organics in the shallow soil layers below the areas of environmental concern identified in Phases 1 through 3.

In addition, two soil samples from the clarifier area were analyzed for concentrations of selected heavy metals. These analyses were performed to test for potential leaks of wastewater from the Iridite process. Samples were prepared by acid digestion using EPA Method 3050 (U.S. Environmental Protection Agency, 1984). Concentrations of antimony, barium, beryllium, cadmium, chromium, cobalt, copper, lead, molybdenum, nickel, silver, thallium, vanadium, and zinc were determined by inductively-coupled plasma using EPA Method 6010. Hexavalent chromium concentrations were analyzed by EPA Method 7196. Concentrations of arsenic were determined using EPA Method 7061, a method that converts arsenic to a gaseous hydride and then measures the concentration of the hydride using atomic absorption techniques. Concentrations of mercury were determined by cold-vapor atomic absorption following EPA Method 7471. Concentrations of selenium were determined using EPA Method 7741, a gaseous hydride atomic absorption technique.

QUALITY ASSURANCE/QUALITY CONTROL

Geraghty & Miller has established an internal quality assurance/quality control (QA/QC) program to ensure the quality and standardization of laboratory performance and data reporting and the development of legally defensible and technically sound data. Towards this end, Geraghty & Miller has established a QA management structure, prepared standard operating procedures manuals, defined the QA performance and reporting requirements for field sampling and laboratory analysis programs, audited and selected capable analytical laboratories,

developed and implemented a standardized laboratory services agreement, designed standardized test requesting procedures, and developed guidelines for reviewing data and reports.

Specific QA/QC elements of the Phase 4 Field Investigation included a review of the proposed field and analytical program by an Office Quality Assurance Officer (OQAO); based on a review of the objectives of the proposed investigation, a quality assurance project plan was developed. This plan included the use of trip blanks, equipment blanks, laboratory blanks, and matrix spike samples, along with a specified program of laboratory calibration and maintenance to analyze for the possibility of cross-contamination, equipment contamination, and laboratory contamination, and to document that analytical equipment were functioning properly. Following receipt of the final laboratory report, the OQAO reviewed all pertinent documentation, including field notes, chain-of-custody forms, request for analysis forms, and the laboratory QA/QC report, for data validation. This procedure ensures that all previously-agreed-upon QA/QC procedures were followed by Geraghty & Miller staff and the laboratory, and also ensures that documentation of field, laboratory, and QA/QC procedures is accurate and complete.

RESULTS OF THE INVESTIGATION

The objective of the Phase 4 Field Investigation was to determine if soil in several key areas identified during Phases 1 through 3 had been impacted by chemical use at the subject facility. Samples were visually inspected, and no discoloration or odors were observed to suggest potential contamination. PID readings were below 3 parts per million (ppm), and the majority of the field readings were nondetected (below 1 ppm). No ground water was encountered in any boring. A summary of analytical results is presented in Table 2.

The floor of the Iridite area was visually inspected as a part of the field program. It had been steam-cleaned, and no cracks, fissures, blemishes, or other potential conduits were observed. Therefore, no borings were located within the Iridite area.

In the clarifier area, two borings were drilled along the northeast side of the building. Boring B-1 was drilled alongside the clarifier to a total depth of 25 feet below ground surface (ft-bgs). The soils encountered consisted of moist, sandy silt, well-graded sand, and silt with

sand; colors ranged from yellowish brown to dark grayish brown. No organic vapors were detected by the PID and no discoloration or odor was noted. The sample collected from 25 ft-bgs was selected for analysis of VOCs, TEPH, metals, and pH. No VOCs or TEPH were detected in the sample. The metal concentrations determined were below the level considered to constitute a hazardous waste as published in the California Code of Regulations (CCR) section 66699 (Table 2). Furthermore, all concentrations were within the average range of concentration of these constituents in natural soils as determined by a U.S. Geological Survey study (Shacklette and Boerngen, 1984). The pH was within the normal range.

Boring B-2, along the underground pipeline leading from the Iridite Area to the clarifier, was drilled to a total depth of 14 ft-bgs. The soils encountered consisted of moist, sandy silt, ranging from grayish brown to yellowish brown. No discolorations or odors were noted. No organic vapors were detected by the PID except for the sample taken at 4 ft-bgs, which had a PID reading of 3 ppm; this sample was selected for analysis of VOCs, TEPH, metals, and pH. No VOCs or TEPH were detected in this sample. All of the metal concentrations determined were below the level considered to constitute a hazardous waste as published in CCR 66699 (Table 2). Furthermore, all metal concentrations were within the average range of concentration of these constituents in natural soils as determined by a U.S. Geological Survey study (Shacklette and Boerngen, 1984). The pH of the sample was within the normal range.

Boring B-3 was drilled alongside the sump in the loading dock to a total depth of 25 ft-bgs. The soils encountered consisted of moist sand with silt and gravel, silty sand, sandy silt, and well-graded sand with gravel; the soil was dark yellowish brown to brown. No discolorations or odors were noted and no organic vapors were detected by the PID. The sample collected at 25 ft-bgs was chosen for analysis of VOCs and TEPH. No VOCs or TEPH were detected in the sample.

Four borings (Borings B-4, B-5, B-6, and B-8) were drilled along the northwestern side of the building. Boring B-4 was drilled to a total depth of 25 ft-bgs in the metal wipe-down area. The soils encountered consisted of silt with sand, sand with silt, and well-graded sand; the soil was typically brown to dark brown and moist. No discolorations or odors were noted,

and no organic vapors were detected by the PID except for the sample at 5 ft-bgs, which had a reading of 3 ppm. The sample collected at 25 ft-bgs was chosen for analysis of VOCs and TEPH content. No VOCs or TEPH were detected in the sample.

Boring B-5 was drilled to a total depth of 25 ft-bgs in the metal wipe-down area. The soils encountered consisted of silt with sand, well-graded sand with silt, and silt; soils were typically brown to brownish grey and moist. No discolorations or odors were noted and no organic vapors were detected by the PID. The sample collected at 25 ft-bgs was chosen for analysis of VOCs and TEPH content; no VOCs or TEPH were detected in the sample (Table 2).

Boring B-6 was drilled to a total depth of 25 ft-bgs in the compressor area. The soils encountered consisted of silty sand, well-graded sand, and silt; soil was typically brown to yellowish brown to gray and dry to moist. No discolorations or odors were noted and no organic vapors were detected by the PID. The sample from 25 ft-bgs was chosen for analysis of VOCs and TEPH. No VOCs or TEPH were detected in the sample.

Boring B-8 was drilled to a total depth of 15 ft-bgs in the compressor area. The soils encountered consisted of silts, typically yellow brown and moist. No discolorations or odors were noted and no organic vapors were detected by the PID. The sample from 15 ft-bgs was chosen for analysis of VOCs and TEPH. No VOCs or TEPH were detected in the sample.

Boring B-7 was drilled to a total depth of 25 ft-bgs at the northeast corner of the Hazardous Waste Storage Area on the northern side of the facility. Soils encountered included well-graded sand and silt with sand, typically yellowish brown and moist. No discolorations or odors were noted and no organic vapors were detected by the PID. The sample from 25 ft-bgs was chosen for analysis of VOCs and TEPH. Analytical results showed a concentration of TCA of 5.2 microgram per kilogram (ug/kg). This concentration is just slightly above the detection limit of 5.0 ug/kg. No other VOCs or TEPH were detected.

CONCLUSIONS

Field monitoring and analytical results support the following conclusions.

- Clarifier area: metal concentrations in two soil samples collected at 4 and 25 ft-bgs below the clarifier and associated piping are below those that would make the soil be considered a hazardous waste (22 CCR 66699) and within the normal range of soil in the United States (Shacklette and Boerngen, 1984). No volatile organics or petroleum hydrocarbons were detected in these samples.
- Loading dock sump area: no volatile organics or petroleum hydrocarbons were detected in one soil sample collected at 25 ft-bgs below the loading dock sump area.
- Metal wipe-down area: no volatile organics or petroleum hydrocarbons were detected in two soil samples collected at 25 ft-bgs below the metal wipe-down area.
- Compressor area: no volatile organics or petroleum hydrocarbons were detected in two soil samples collected at 15 and 25 ft-bgs below the compressor area.
- Hazardous waste storage area: no petroleum hydrocarbons were detected in one soil sample taken at 25 ft-bgs in the Hazardous Waste Storage Area. Only one volatile organic, TCA, was detected in this sample at a concentration of 5.2 ug/kg. The reporting limit was 5.0 ug/kg.

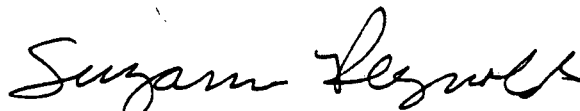
The very low concentration of TCA present below the Hazardous Waste Storage Area is just above the detection limit of 5.0 ug/kg. Volatile organics or petroleum hydrocarbons were not detected beneath the clarifier, loading-dock sump, or metal wipe-down areas. Heavy metal

concentrations above background were not detected beneath the clarifier area. These conclusions are based only on limited chemical analysis of samples from locations and depths as described in the scope of work.

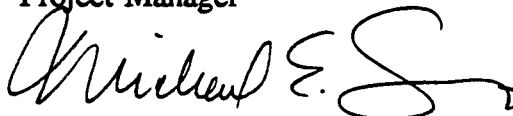
This work has been performed and this report prepared in accordance with generally accepted environmental science and engineering practices. This warranty is in lieu of all other warranties, expressed or implied. In addition, Geraghty & Miller does not warrant the validity or accuracy of data obtained from public information sources and regulatory agencies. Even with due care and appropriate personnel present, there may remain unknown and hidden conditions that were missed during the investigation.

Respectfully submitted,

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DRACON.084

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DRACON.084

Table 1

**Analytical Program, Phase 4 Field Investigation,
Harris Dracon Facility, Chatsworth, California**

Sample No.	VOCs EPA 8240	TEPH EPA 8015 (modified)	Metals	pH	General Sampling Location
B-1-25	*	*	*	*	Clarifier area
B-2-4	*	*	*	*	Clarifier piping
B-3-25	*	*			Loading dock sump
B-4-25	*	*			TCA wipe-down area
B-5-25	*	*			TCA wipe-down area
B-6-25	*	*			Compressor area
B-7-25	*	*			Hazardous waste storage area
B-8-15	*	*			Compressor area
GM-1	*				QA/QC sample
GM-2					(Not analyzed) QA/QC sample
GM-3	*	*	*		QA/QC sample

DRATBL1.084

Table 2

**Summary of Analytical Results
Phase 4 Field Investigation
at Harris Dracon Facility,
Chatsworth, California
Page 1 of 2**

	B-1 -25	B-2 -4	B-3 -25	B-4 -25	B-5 -25	B-6 -25	B-7 -25	B-8 -15	GM -1	GM -3	MCL ¹	TTL ²	Avg. ³ Soil
TPH	--	--	--	--	--	--	--	--	--	--			
pH	8.6	7.8											
VOCs ⁴ 1,1,1-TCA	--	--	--	--	--	--	5.2 ⁵	--	--	--	200	None	
Antimony	--	--	--	--	--	--	--	--	--	--	NA ⁶	500	1-2.6
Arsenic	4.7	3.6	--	--	--	--	--	--	--	--	NA	500	0.1-97
Barium	112	89.1	--	--	--	--	--	--	--	--	NA	10,000	70-5,000
Beryllium	0.44	0.35	--	--	--	--	--	--	--	--	NA	75	1-15
Cadmium	1.2	1.6	--	--	--	--	--	--	--	--	NA	100	1-10
Chromium, total	17.8	15.6	--	--	--	--	--	--	--	--	NA	2,500	3-2,000
Chromium, hex	--	--	--	--	--	--	--	--	--	--	NA	500	--
Cobalt	7.7	5.9	--	--	--	--	--	--	--	--	NA	800	3-50
Copper	21.7	21.0	--	--	--	--	--	--	--	--	NA	2,500	2-300
Lead	--	--	--	--	--	--	--	--	--	--	NA	1,000	10-700
Mercury	--	--	--	--	--	--	--	--	--	--	NA	20	.01-4.6
Molybdenum	4.2	3.4	--	--	--	--	--	--	--	--	NA	3,500	3-7

Table 2

**Summary of Analytical Results
Phase 4 Field Investigation
at Harris Dracon Facility,
Chatsworth, California
Page 2 of 2**

	B-1 -25	B-2 -4	B-3 -25	B-4 -25	B-5 -25	B-6 -25	B-7 -25	B-8 -15	GM -1	GM -3	MCL¹	TTLC²	Avg.³ Soil
Nickel	21.9	17.4	--	--	--	--	--	--	--	--	NA	2,000	5-700
Selenium	--	--	--	--	--	--	--	--	--	--	NA	100	0.1-4.3
Silver	--	--	--	--	--	--	--	--	--	--	NA	100	2-5
Thallium	--	--	--	--	--	--	--	--	--	--	NA	700	2.4-31
Vanadium	40.3	33.1	--	--	--	--	--	--	--	--	NA	2,400	7-500
Zinc	52.9	47.4	--	--	--	--	--	--	--	--	NA	5,000	10-2,100

1 - From 40 CFR 141.50

2 - From 22 CCR 66699

3 - From Shacklette and Boemgen, 1984

4 - Only reported volatile organic compounds (VOCs) have been included; -- signifies that the constituent was not detected

5 - All concentrations are given in ug/kg

6 - Maximum contaminant levels (MCLs) not applicable in this case

DRATBL2.084

DRAFTER: JDB

MGR.: DJC

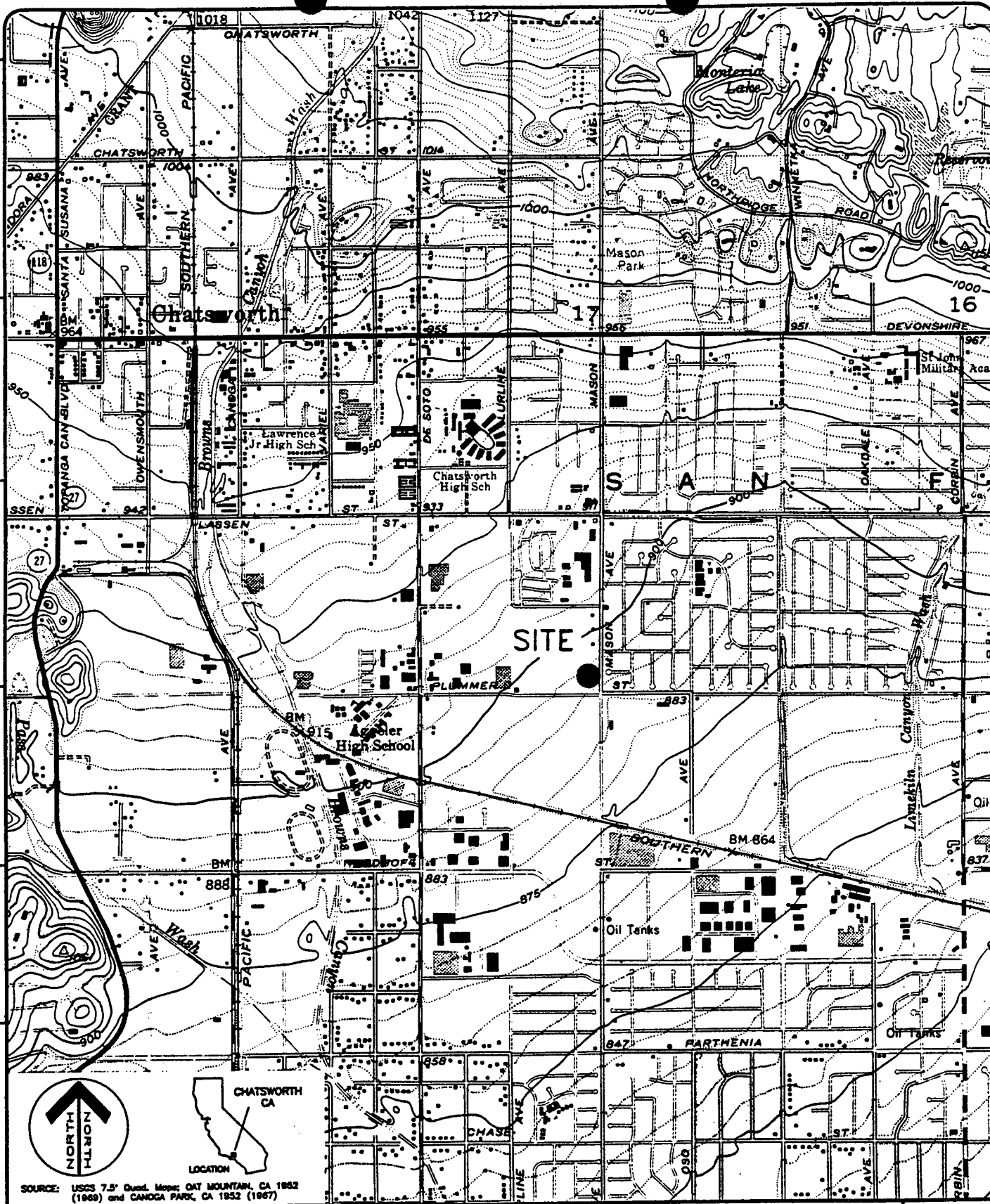
AMPLER: DJC

CAD FILE: 12301F1.DWG

FILE NO.: R10066M

PRJCT. NO.: CA12301

DATE: 26 Nov 90



SOURCE: USGS 7.5' Quad Maps: OAT MOUNTAIN, CA 1952 (1959) and CANOGA PARK, CA 1952 (1967)

SCALE
0 2000 FT

GERAGHTY & MILLER, INC.
Environmental Services

SITE LOCATION

HARRIS DRACON CHATSWORTH, CA

FIGURE

1

APPENDIX A
HEALTH AND SAFETY PLAN

**GERAGHTY & MILLER, INC.
SITE HEALTH AND SAFETY PLAN
FOR
HARRIS-DRACON ASSESSMENT**

January 3, 1991

Prepared for:

**Harris Corporation
Dracon Division
Chatsworth, California**

Prepared by:

**Geraghty & Miller, Inc.
Environmental Services
175 Castleton Street, Suite 175
City of Industry, California 91748**

GERAGHTY & MILLER, INC.**SITE HEALTH & SAFETY PLAN (HASP)**

PROJECT NAME: Harris-Dracon

PROJECT NUMBER: CA12302

DESCRIPTION OF WORK: Advancement of soil borings and the collection of soil samples

PROJECT CLIENT: Harris-Dracon
9541 Mason Avenue
Chatsworth, California

CLIENT CONTACT: John Bird
(818) 882-8595

PROJECT SITE LOCATION: Harris-Dracon
9541 Mason Avenue
Chatsworth, California

PRIME CONTRACTOR: Geraghty & Miller, Inc.
17800 Castleton Street, Suite 175
City of Industry, California 91748
(818) 965-4048

PROJECT MANAGER: Dana Coyle
(818) 965-4048

GERAGHTY & MILLER HEALTH & SAFETY COORDINATOR: Kenji Shintaku and Dana Coyle

ON-SITE HEALTH & SAFETY COORDINATOR: Kenji Shintaku
(Geraghty & Miller, Inc., Industry, CA)

SITE DESCRIPTION: Harris-Dracon facility is located at 9541 Mason Avenue, north of the intersections of Plummer Street and Mason Avenue. The facility is a fully operational manufacturing plant.

BACKGROUND: Harris-Dracon supplies the telecommunications industry with a wide variety of metal and plastic products. A large volume of its metal operation is devoted to the manufacture of relay racks, cable runways, and sheet metal products. Many of the plastic items

are used by servicemen during the installation of cable or repair of telecommunication and data lines. The operations and processes include aluminum and steel cleaning, fabrication, and coating and injection molding of plastic parts. For the most part, operations at Harris-Dracon have remained the same since it occupied the building in 1974. No known spills of chemicals or other hazardous substances have occurred at the site.

As part of the metal coating process, waste water is discharged to the City of Los Angeles sewer system via a clarifier on the east side of the facility. This waste water is sampled periodically for metals under a permit issued by the City of Los Angeles, Department of Public Works, Bureau of Sanitation.

PLANNED SITE ACTIVITIES: Two 10-hour days of field work have been scheduled for January 7, 1990 and January 8, 1990. Site activities will include the following:

1. Collecting continuous splitspoon soil samples and screening them with a photoionization detector (PID). The soil sample with the highest PID reading will be analyzed for analytical parameters depending on the different locations at the site. A listing of proposed sample locations and parameters selected for analysis is provided in Table 1.

Field blanks will be collected on-site and trip blanks prepared by the laboratory and will accompany the samples.

KNOWN CHEMICAL HAZARDS:

COMPONENT	LOCATION	MEDIA	TLV* TWA	STEL** (ppm)
Benzene	All site	S,W,A	1 ppm	5
Toluene	All site	S,W,A	100 ppm	150
Xylene	All site	S,W,A	100 ppm	150
Ethylbenzene	All site	S,W,A	100 ppm	125
1,1,1-TCA	All site	S,W,A	350 ppm	450
Chromium	All site	S,W,A	0.5 mg/m ³	---
Cyanide	All site	S,W,A	5 mg/m ³	---
Zinc	All site	S,W,A	10 mg/m ³	---
Nickel	All site	S,W,A	1 mg/m ³	---

S = soil

W = water

A = air

- * Values per American Conference of Governmental Industrial Hygienists (TLV) or the Occupational Safety and Health Administration (PEL) whichever is most stringent. The Threshold Limit Value (TLV) is the time-weighted average (TWA) concentration for a forty-hour work week, to which all workers may be repeatedly exposed without adverse effect. The PEL is the OSHA permissible exposure limit, and is also a TWA.
- ** The Short-Term Exposure Limit (STEL) is the concentration at which workers can be exposed continuously for a short period of time. Exposures at the STEL should not be longer than 15 minutes and should not be repeated more than four times in an eight-hour period. There should be at least one hour between each 15 minute exposure at the STEL.

REQUIRED HEALTH AND SAFETY PROCEDURES: There is a potential for exposure to fire, explosion, heavy equipment, public vehicular traffic, metals, hydrocarbons, and volatile organic compounds at this site, due to the nature of the work. Appropriate personal protective equipment will be worn by all site workers at all times. Heavy equipment will only be operated by authorized and qualified persons. A safe distance, as determined by the on-site safety coordinator, will be maintained between the work area and public areas. Barricades or flagging will be used to isolate workers from public vehicular traffic.

Every effort will be made to minimize the amount of dust generated during drilling activities. If excessive dust should become a problem, then water will be used to wet areas and reduce dust. Should excessively dusty conditions persist, respirators with particulate cartridges will be donned.

No smoking will be allowed on site except in designated areas. Explosion proof or intrinsically safe equipment must be used in potentially explosive areas. A first aid kit will be placed in a safe area just outside the work zone. Access to the work area will be restricted to personnel trained in accordance with OSHA 29 CFR 1910.120.

REQUIRED PERSONAL PROTECTIVE EQUIPMENT: The following protective equipment is required for all site workers engaged in well installation, sampling, testing and associated activities:

1. Hard hat
2. Safety glasses
3. Protective nitrile gloves worn over surgical gloves (when sampling)
4. Boots (steel toes required)
5. Sleeved shirts and pants, or coveralls, or Tyvek™, poly-coated Tyvek™, or equivalent disposable coveralls will be worn when skin exposure to fluids or contaminated materials is likely.
6. Air-purifying respirator (APR) with organic vapor cartridges (see below for guidelines).
7. Hearing protection (optional).

AIR MONITORING:

Methods and Action Levels: Prior to beginning field activities, up-wind air monitoring will be conducted to determine a baseline (ambient) air quality value. A flame ionization detector (FID) or a PID will be used to take air monitoring readings in the breathing zone when drilling and sampling, being performed. When breathing zone readings indicate that a worker is being exposed to a sustained level (more than 5 minutes duration) of 5 ppm (the STEL for benzene) above the ambient air level, benzene detector tubes will be used to determine if benzene is present at concentrations greater than 5 ppm. If not, work will proceed, with benzene detector tubes used every half hour to ensure that benzene levels do not exceed 5 ppm. Workers may work up to levels of 100 ppm (the action levels for toluene, xylene, ethylbenzene, and 350 ppm for 1,1,1-TCA) before donning air-purifying respirators (APRs) equipped with organic vapor cartridges if benzene is not present. If benzene is present at concentrations that exceed 5 ppm, APRs with organic vapor cartridges will be donned by all workers in the work area. At sustained levels of 50 ppm benzene, personnel will exit the work area until benzene levels decrease.

Frequency: The FID or PID readings will be taken in the breathing zone and at the borehole at least every half hour. Ambient readings will be taken twice per day. Daily or more frequent readings will also be recorded near emission sources (rig exhaust, pump discharge, etc. Monitoring frequencies as listed are minimum intervals. More frequent readings may be taken at the discretion of any site worker.

Recordkeeping: All readings will be recorded in the appropriate Health & Safety Log Book for the project. Daily calibrations of all instruments will also be documented.

CONTINGENCY PLANS: If the vapor levels in the general work area are found to meet or exceed any of the action levels, then work will be discontinued and the work site evacuated as directed by the site safety coordinator (Geraghty & Miller site representative). The work area periphery will be monitored by the site safety coordinator and work will resume when the vapor levels drop below the action level. If vapor levels continue to meet or exceed action levels, work will cease and the work location will be secured and evacuated. Work shall not continue until the health and safety plan is appropriately revised to meet the new conditions.

Should persistent safety hazards, accident, or fire occur, take appropriate immediate action if required (e.g., extinguish the fire, give first aid, etc.) and contact emergency personnel immediately and then contact the Geraghty & Miller Health and Safety Coordinator.

HEAT STRESS MONITORING: At any time that the ambient temperature exceeds 90° F, or at the discretion of the Geraghty & Miller Site Safety Coordinator, heat stress monitoring will be conducted. If no air-conditioned facilities or shaded areas are located nearby, temperature and pulse will be recorded in the Health & Safety Log Book. Rest Periods will be determined by the on-site safety coordinator. A supply of cold liquids will be kept on-site.

DECONTAMINATION PROCEDURES: Geraghty & Miller personnel will be responsible for decontaminating any sampling or personal protective equipment, such as respirators, outside of the work area. Care will be taken to ensure that contaminated materials are not released to clean areas.

EMERGENCY CONTACTS AND PROCEDURES: Skin or eye contact with hydrocarbons should be immediately treated by washing the contacted area with soap and water and providing appropriate medical attention, if necessary. Should any situation or unplanned occurrence require outside or support services, the appropriate contact from the following list should be made.

Agency	Telephone Number
FIRE AND RESCUE:	911
POLICE:	911
HOSPITAL:	(818) 340-0580
UNDERGROUND UTILITIES:	
Dig Alert	1-800-422-4133
Dig Alert Ticket Number	000217
GERAGHTY & MILLER	
HEALTH & SAFETY COORDINATOR:	
Kenji Shintaku	(818) 965-4048

HOSPITAL ROUTE TO WEST PARK HOSPITAL: West Park Hospital is located at 22141 Roscoe Boulevard, approximately 2.75 miles southwest from the site. The recommended route is to take Mason Avenue south to Plummer Street, turn west on Plummer to DeSoto Avenue, continue south on DeSoto to Roscoe Blvd., turn west on Roscoe to number 22141 Roscoe Blvd.

MEDICAL SURVEILLANCE AND TRAINING: All Geraghty & Miller personnel are covered by corporate medical surveillance and training programs that comply with the OSHA 29 CFR 1910.120 requirements. The client and all subcontractors are responsible for the training and medical surveillance of their own personnel.

SPECIAL PROCEDURES AND PRECAUTIONS: This plan is designed to protect Geraghty & Miller personnel. It does not override, but may be considered a supplement to, any more stringent HASP prepared by the client. Subcontractors are required to submit to the Geraghty & Miller project manager a HASP applicable to their prescribed activities.

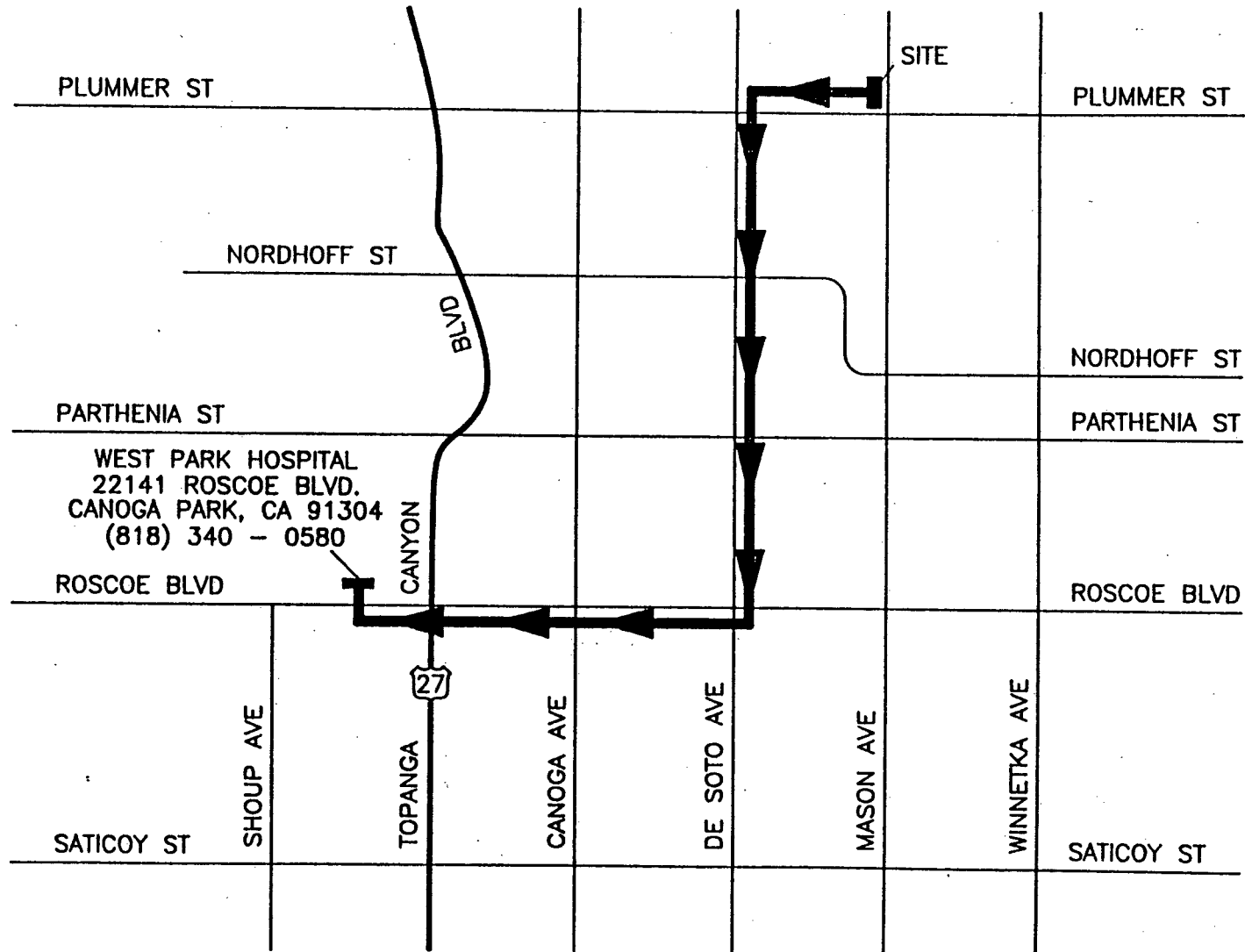
APPROVED**G&M PROJECT MANAGER**Dana Conle KDS1/7/91
DATE**G&M SAFETY COORDINATOR**Dick Smith KDS1/7/91
DATE**G&M ON-SITE SAFETY
COORDINATOR**Ken J. Loken1/7/91
DATE

SIGNATURE

COMPANY

DATE

Kenji FletcherGIM1/7/91Bob HixWest Hazmat1-7-91Shannon F. MaguireWest Hazmat Drilling1/7/91



SCALE

0 28,000 FT



**GERAGHTY
& MILLER, INC.**
Environmental Services

ROUTE TO HOSPITAL

HARRIS DRACON

CHATSWORTH, CA

FIGURE





1

APPENDIX B
BORING LOGS

GERAGHTY & MILLER, INC.

BORING LOG

PROJECT <u>Harris-Dragon</u>	PROJECT NO. <u>CA12302</u>	BORING <u>B-1</u>
LOCATION <u>Chatsworth</u>	LOGGED BY <u>Kenji Shintaku</u>	DATE STARTED <u>1/7/91</u>
DRILL METHOD <u>Hollow Stem Auger</u>	DRILL CO. <u>West Hazmat</u>	DATE COMPLETED <u>1/7/91</u>
SAMPLING METHOD <u>Continuous</u>	RIG TYPE <u>CME-75</u>	BORING DEPTH <u>25.0 ft.</u>
BORING DIAMETER <u>8 in.</u>	DRILLER <u>Bob</u>	

DEPTH (ft)	RECOVERY %	SAMP. INTERVAL	SAMPLE NO.	PID (ppm)	BLOWS/FT	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	REMARKS	DEPTH (ft)
5						MH		CONCRETE, 4 inches SILT, with sand, dark grayish brown (2.5Y, 3/2), moist, f.g. sand, poorly graded		5
10										10
15								-SILT, with sand, dark yellowish brown (10YR, 4/6), moist, f.g. sand, poorly graded -SILT, with sand, dark yellowish brown (10YR, 4/6), wet, f.g. sand, poorly graded		15
20						SM		SAND, some silt, yellowish brown (10 YR, 4/6), moist, f.g. to m.g. sand, well-graded		20
						SM		SAND, few gravel, light yellowish brown (10YR, 6/4), moist f.g. to m.g. sand, well graded		
25						MH		SILT, few sand, pale brown (10YR, 6/3), moist, f.g. sand		25
30								Bottom of boring at 25 feet		30
35										35

GERAGHTY & MILLER, INC.

BORING LOG






PROJECT <u>Harris-Dracon</u>	PROJECT NO. <u>CA12302</u>	BORING <u>B-2</u>
LOCATION <u>Chatsworth</u>	LOGGED BY <u>Kenji Shintaku</u>	DATE STARTED <u>1/7/91</u>
DRILL METHOD <u>Hollow Stem Auger</u>	DRILL CO. <u>West Hazmat</u>	DATE COMPLETED <u>1/7/91</u>
SAMPLING METHOD <u>Continuous</u>	RIG TYPE <u>CME-75</u>	BORING DEPTH <u>25.0 ft.</u>
BORING DIAMETER <u>8 in.</u>	DRILLER <u>Bob</u>	

DEPTH (ft)	RECOVERY %	SAMP. INTERVAL	SAMPLE NO.	OVA (ppm)	BLOMS/FT	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	REMARKS	DEPTH (ft)
5						MH		CONCRETE, 4 inches		5
						MH		SILT, with sand, very dark grayish brown (10YR, 3/2) moist, f.g. sand		
10								SILT, few sand, yellowish brown (10YR, 5/4), moist, f.g. sand		10
15								Bottom of boring at 14 feet		15
20										20
25										25
30										30
35										35

GERAGHTY & MILLER, INC.

BORING LOG






PROJECT <u>Harris-Dragon</u>	PROJECT NO. <u>CA12302</u>	BORING <u>B-3</u>
LOCATION <u>Chatsworth</u>	LOGGED BY <u>Kenji Shintaku</u>	DATE STARTED <u>1/7/91</u>
DRILL METHOD <u>Hollow Stem Auger</u>	DRILL CO. <u>West Hazmat</u>	DATE COMPLETED <u>1/7/91</u>
SAMPLING METHOD <u>Continuous</u>	RIG TYPE <u>CME-75</u>	BORING DEPTH <u>25.0 ft.</u>
BORING DIAMETER <u>8 in.</u>	DRILLER <u>Bob</u>	

DEPTH (ft)	RECOVERY %	SAMP. INTERVAL	SAMPLE NO.	PID (ppm)	BLOWS/FT	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	REMARKS	DEPTH (ft)
5						SM		CONCRETE, 4 inches SAND, few silt, few gravel, brown (10YR, 5/3), moist, f.g. to m.g. sand, well graded, micaceous		5
10						MH		SILT, few sand, dark yellowish brown (10YR, 4/6), moist, f.g. sand, micaceous -Increasing moisture -Few clay		10
15						SP		SAND, with silt, dark yellowish brown (10YR, 4/6), moist, f.g. to m.g. sand, poorly graded		15
20						MH SM	 	SILT, few sand, dark yellowish brown, (10YR, 4/6) moist, f.g. to m.g. sand, well graded SAND, some gravel, dark yellowish brown (10YR, 4/6), moist, f.g. to m.g. sand, well graded		20
25								Bottom of boring at 25 feet		25
30										30
35										35

GERAGHTY & MILLER, INC.

BORING LOG




PROJECT <u>Harris-Dracon</u>	PROJECT NO. <u>CA12302</u>	BORING <u>B-4</u>
LOCATION <u>Chatsworth</u>	LOGGED BY <u>Kenji Shintaku</u>	DATE STARTED <u>1/7/91</u>
DRILL METHOD <u>Hollow Stem Auger</u>	DRILL CO. <u>West Hazmat</u>	DATE COMPLETED <u>1/7/91</u>
SAMPLING METHOD <u>Continuous</u>	RIG TYPE <u>CME-75</u>	BORING DEPTH <u>25.0 ft.</u>
BORING DIAMETER <u>8 in.</u>	DRILLER <u>Bob</u>	

DEPTH (ft)	RECOVERY %	SAMP. INTERVAL	SAMPLE NO.	OVA (ppm)	BLOWS/FT	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	REMARKS	DEPTH (ft)
5						MH		CONCRETE, 4 inches SILT, few sand, dark brown (7.5YR, 3/2), moist f.g. sand, poorly graded		5
10						SP MH	 	SAND, few silt, brown (7.5YR, 5/2), slightly moist, f.g. sand, poorly graded SILT, few sand, brown (7.5YR, 5/2) slightly moist, f.g. sand		10
15						SW		SAND, pinkish white (7.5YR, 8.2), slightly moist, f.g. to m.g. sand, well graded		15
20						MH		SILT, few sand, brown (7.5YR, 5/2), moist, f.g. sand		20
25								Bottom of boring at 25 feet.		25
30										30
35										35

GERAGHTY & MILLER, INC.

BORING LOG

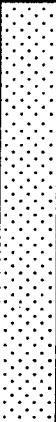


PROJECT Harris-Dragon PROJECT NO. CA12302 BORING B-5
 LOCATION Chatsworth LOGGED BY Kenji Shintaku DATE STARTED 1/7/91
 DRILL METHOD Hollow Stem Auger DRILL CO. West Hazmat DATE COMPLETED 1/7/91
 SAMPLING METHOD Continuous RIG TYPE CME-75 BORING DEPTH 25.0 ft.
 BORING DIAMETER 8 in. DRILLER Bob

DEPTH (ft)	RECOVERY %	SAMP. INTERVAL	SAMPLE NO.	PID (ppm)	BLOWS/FT	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	REMARKS	DEPTH (ft)
5						MH		CONCRETE, 4 inches SILT, few sand, strong brown (7.5YR, 5/8), moist, f.g. sand, micaceous		5
10						SH		SAND, some silt, strong brown (7.5YR, 4/6) moist, f.g. to c.g. sand, well graded, micaceous		10
15						MH		SILT, light brownish gray (10YR, 6/2), moist micaceous		15
20										20
25								Bottom of boring at 25 feet.		25
30										30
35										35

GERAGHTY & MILLER, INC.

BORING LOG



PROJECT <u>Harris-Dracon</u>	PROJECT NO. <u>CA12302</u>	BORING <u>B-6</u>
LOCATION <u>Chatsworth</u>	LOGGED BY <u>Kenji Shintaku</u>	DATE STARTED <u>1/8/91</u>
DRILL METHOD <u>Hollow Stem Auger</u>	DRILL CO. <u>West Hazmat</u>	DATE COMPLETED <u>1/8/91</u>
SAMPLING METHOD <u>Continuous</u>	RIG TYPE <u>CME-75</u>	BORING DEPTH <u>25.0 ft.</u>
BORING DIAMETER <u>8 in.</u>	DRILLER <u>Bob</u>	

DEPTH (ft)	RECOVERY %	SAMP. INTERVAL	SAMPLE NO.	OVA (ppm)	BLOWS/FT	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	REMARKS	DEPTH (ft)
5						SP		CONCRETE, 4 inches SAND, with silt, brown (7.5YR, 5/4), slightly moist, f.g. sand -Color changing to dark brown (7.5YR, 3/2) -Color changing to brown (7.5YR, 5/4), few gravel		5
10						SN		SAND, some gravel, light gray (10YR, 7/2), dry, f.g. to m.g. sand, well graded		10
15						MH		SILT, light yellowish brown (10YR, 6/4), slightly moist, micaceous		15
20										20
25								Bottom of boring at 25 feet.		25
30										30
35										35

GERAGHTY & MILLER, INC.

BORING LOG

PROJECT Harris-DraconPROJECT NO. CA12302BORING B-7LOCATION ChatsworthLOGGED BY Kenji ShintakuDATE STARTED 1/8/91DRILL METHOD Hollow Stem AugerDRILL CO. West HazmatDATE COMPLETED 1/8/91SAMPLING METHOD ContinuousRIG TYPE CME-75BORING DEPTH 25.0 ft.BORING DIAMETER 8 in.DRILLER Bob

DEPTH (ft)	RECOVERY %	SAMP. INTERVAL	SAMPLE NO.	PID (ppm)	BLOWS/FT	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	REMARKS	DEPTH (ft)
5						SW		CONCRETE, 4 inches SAND, yellowish brown (10YR, 5/4), moist, f.g. to m.g. sand, well graded		5
10						MH		SILT, few sand, yellowish brown (10YR, 5/6), moist, f.g. sand -Increasing c.g. sand -Increasing moisture -Few gravel		10
15										15
20										20
25								Bottom of boring at 25 feet.		25
30										30
35										35

GERAGHTY & MILLER, INC.

BORING LOG

PROJECT <u>Harris-Dracon</u>	PROJECT NO. <u>CA12302</u>	BORING <u>B-8</u>
LOCATION <u>Chatsworth</u>	LOGGED BY <u>Kenji Shintaku</u>	DATE STARTED <u>1/8/91</u>
DRILL METHOD <u>Hollow Stem Auger</u>	DRILL CO. <u>West Hazmat</u>	DATE COMPLETED <u>1/8/91</u>
SAMPLING METHOD <u>Continuous</u>	RIG TYPE <u>CME-75</u>	BORING DEPTH <u>25.0 ft.</u>
BORING DIAMETER <u>8 in.</u>	DRILLER <u>Bob</u>	

DEPTH (ft)	RECOVERY %	SAMP. INTERVAL	SAMPLE NO.	PID (ppm)	BLOMS/FT	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION OF MATERIAL	REMARKS	DEPTH (ft)
5						MH		CONCRETE, 4 inches		5
10								SILT, few sand, yellowish brown (10YR. 5/4). moist c.g. sand		10
15								Bottom of boring at 15 feet.		15
20										20
25										25
30										30
35										35

APPENDIX C
CHAIN-OF-CUSTODY RECORDS

APPENDIX D
ANALYTICAL RESULTS

Enseco - CRL

7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

January 21, 1991

GERAGHTY & MILLER
17800 CASTLETON STREET, STE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100812-001/004
Date Sampled: 8-JAN-1991
Date Sample Rec'd: 8-JAN-1991
Project: (CA 12342) CHATSWORTH

Enclosed with this letter is the report on the chemical and physical analyses on the samples from ANALYSIS NO: G-9100812-001/004 shown above.

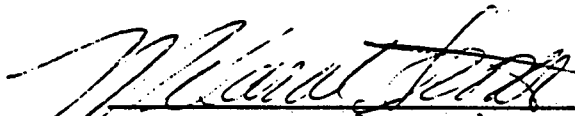
The samples were received by CRL in a chilled state, intact and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Solid samples are reported on "as received" basis.

Preliminary data for EPA Method 8240 were provided on January 14, 1991 at 9:07 A.M.


Reviewed


Approved

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100721-001/005
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Date Analyzed: 8-JAN-1991
17-JAN-1991
Sample Type: SOLID

Project: (CA 12342) CHATSWORTH

Sample ID	TPH, Extractable mg/kg DHS-ES	pH units EPA 9045
B-1 @ 25'	ND(10.)	8.6
B-2 @ 4'	ND(10.)	7.8
B-3 @ 25'	ND(10.)	
B-4 @ 25'	ND(10.)	
B-5 @ 25'	ND(10.)	
Blank	ND(10.)	NA

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100812-001/003
Date Sampled: 8-JAN-1991
Date Sample Rec'd: 8-JAN-1991
Date Analyzed: 10-JAN-1991
Sample Type: SOLID

Project: (CA 12342) CHATSWORTH

Sample ID	TPH, Extractable mg/kg DHS-ES
B-6 @ 25'	ND(10.)
B-7 @ 25'	ND(10.)
B-8 @ 15'	ND(10.)
Blank	ND(10.)

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100721-001
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: SOLID
Date Prepared: 9-JAN-1991
Prep Method: EPA 5030 By: GB
Date Analyzed: 9-JAN-1991 By: GB

Project: (CA 12342) CHATSWORTH
Sample ID: B-1 @ 25'

Purgeable Organics, EPA 8240

Units: ug/kg

Parameter	Sample Result	Sample RL	Blank Result	Blank RL
Chloromethane	ND	10	ND	10
Bromomethane	ND	10	ND	10
Vinyl Chloride	ND	10	ND	10
Chloroethane	ND	10	ND	10
Methylene Chloride	ND	5	ND	5
Acetone	ND	10	ND	10
Carbon Disulfide	ND	5	ND	5
Trichlorofluoromethane	ND	5	ND	5
1,1-Dichloroethene	ND	5	ND	5
1,1-Dichloroethane	ND	5	ND	5
Total 1,2-Dichloroethene	ND	5	ND	5
Chloroform	ND	5	ND	5
1,2-Dichloroethane	ND	5	ND	5
2-Butanone	ND	10	ND	10
1,1,1-Trichloroethane	ND	5	ND	5
Carbon Tetrachloride	ND	5	ND	5
Vinyl Acetate	ND	10	ND	10
Bromodichloromethane	ND	5	ND	5
1,2-Dichloropropane	ND	5	ND	5
cis-1,3-Dichloropropene	ND	5	ND	5
Trichloroethene	ND	5	ND	5
Dibromochloromethane	ND	5	ND	5
1,1,2-Trichloroethane	ND	5	ND	5
Benzene	ND	5	ND	5
trans-1,3-Dichloropropene	ND	5	ND	5
2-Chloroethylvinyl ether	ND	10	ND	10
Bromoform	ND	5	ND	5
4-Methyl-2-pentanone	ND	10	ND	10
2-Hexanone	ND	10	ND	10
Tetrachloroethene	ND	5	ND	5
1,1,2,2-Tetrachloroethane	ND	5	ND	5
Toluene	ND	5	ND	5
Chlorobenzene	ND	5	ND	5
Ethylbenzene	ND	5	ND	5
Styrene	ND	5	ND	5
Xylenes, Total	ND	5	ND	5

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100721-001
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: SOLID

Project: (CA 12342) CHATSWORTH

Purgeable Organics, EPA 8240 Surrogate Summary

Date	Parameter (Method)	Percent Recovery	Acceptable Range
9-JAN-1991	1,2 DICHLOROETHANE-D4 (EPA 8240)	101	80-121
9-JAN-1991	TOLUENE-D8 (EPA 8240)	100	78-125
9-JAN-1991	BROMOFLUOROBENZENE (EPA 8240)	98	72-129

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100721-001
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: SOLID

Project: (CA 12342) CHATSWORTH
Sample ID: B-1 @ 25'

Metal Prepared by EPA 3050 By NL
MERCURY Prepared by HG PREP By NL

Parameter	Units	Sample Result	Sample RL	Blank Result	Blank RL	Date Prepared	Date Analyzed	By
Antimony/TTLC (EPA 6010)	mg/kg	ND	6	ND	6	01/16/91	01/17/91	JW
Arsenic/TTLC (EPA 7061)	mg/kg	4.7	0.5	ND	.5	01/16/91	01/18/91	JW
Barium/TTLC (EPA 6010)	mg/kg	112	1	ND	1	01/16/91	01/17/91	JW
Beryllium/TTLC (EPA 6010)	mg/kg	0.44	0.2	ND	.2	01/16/91	01/17/91	JW
Cadmium/TTLC (EPA 6010)	mg/kg	1.2	0.5	ND	.5	01/16/91	01/17/91	JW
Chromium, Total/TTLC (EPA 6010)	mg/kg	17.8	1	ND	1	01/16/91	01/17/91	JW
Chromium, Hex/TTLC (EPA 7196)	mg/kg	ND	0.2	ND	.2	01/16/91	01/19/91	JC
Cobalt/TTLC (EPA 6010)	mg/kg	7.7	1	ND	1	01/16/91	01/17/91	JW
Copper/TTLC (EPA 6010)	mg/kg	21.7	2	ND	2	01/16/91	01/17/91	JW
Lead/TTLC (EPA 6010)	mg/kg	ND	5	ND	5	01/16/91	01/17/91	JW
Mercury/TTLC (EPA 7471)	mg/kg	ND	0.1	ND	.1	01/16/91	01/17/91	JW
Molybdenum/TTLC (EPA 6010)	mg/kg	4.2	2	ND	2	01/16/91	01/17/91	JW
Nickel/TTLC (EPA 6010)	mg/kg	21.9	4	ND	4	01/16/91	01/17/91	JW
Selenium/TTLC (EPA 7741)	mg/kg	ND	0.5	ND	.5	01/16/91	01/18/91	JW
Silver/TTLC (EPA 6010)	mg/kg	ND	1	ND	1	01/16/91	01/17/91	JW
Thallium/TTLC (EPA 6010)	mg/kg	ND	50	ND	50	01/16/91	01/17/91	JW
Vanadium/TTLC (EPA 6010)	mg/kg	40.3	1	ND	1	01/16/91	01/17/91	JW
Zinc/TTLC (EPA 6010)	mg/kg	52.9	2	ND	2	01/16/91	01/17/91	JW

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100721-002
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: SOLID
Date Prepared: 9-JAN-1991
Prep Method: EPA 5030
Date Analyzed: 9-JAN-1991
By: GB
By: GB

Project: (CA 12342) CHATSWORTH
Sample ID: B-2 @ 4'

Purgeable Organics, EPA 8240

Units: ug/kg

Parameter	Sample Result	Sample RL	Blank Result	Blank RL
Chloromethane	ND	10	ND	10
Bromomethane	ND	10	ND	10
Vinyl Chloride	ND	10	ND	10
Chloroethane	ND	10	ND	10
Methylene Chloride	ND	5	ND	5
Acetone	ND	10	ND	10
Carbon Disulfide	ND	5	ND	5
Trichlorofluoromethane	ND	5	ND	5
1,1-Dichloroethene	ND	5	ND	5
1,1-Dichloroethane	ND	5	ND	5
Total 1,2-Dichloroethene	ND	5	ND	5
Chloroform	ND	5	ND	5
1,2-Dichloroethane	ND	5	ND	5
2-Butanone	ND	10	ND	10
1,1,1-Trichloroethane	ND	5	ND	5
Carbon Tetrachloride	ND	5	ND	5
Vinyl Acetate	ND	10	ND	10
Bromodichloromethane	ND	5	ND	5
1,2-Dichloropropane	ND	5	ND	5
cis-1,3-Dichloropropene	ND	5	ND	5
Trichloroethene	ND	5	ND	5
Dibromochloromethane	ND	5	ND	5
1,1,2-Trichloroethane	ND	5	ND	5
Benzene	ND	5	ND	5
trans-1,3-Dichloropropene	ND	5	ND	5
2-Chloroethylvinyl ether	ND	10	ND	10
Bromoform	ND	5	ND	5
4-Methyl-2-pentanone	ND	10	ND	10
2-Hexanone	ND	10	ND	10
Tetrachloroethene	ND	5	ND	5
1,1,2,2-Tetrachloroethane	ND	5	ND	5
Toluene	ND	5	ND	5
Chlorobenzene	ND	5	ND	5
Ethylbenzene	ND	5	ND	5
Styrene	ND	5	ND	5
Xylenes, Total	ND	5	ND	5

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100721-002
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: SOLID

Project: (CA 12342) CHATSWORTH

Purgeable Organics, EPA 8240 Surrogate Summary

Date	Parameter (Method)	Percent Recovery	Acceptable Range
9-JAN-1991	1,2 DICHLOROETHANE-D4 (EPA 8240)	96	80-121
9-JAN-1991	TOLUENE-D8 (EPA 8240)	98	78-125
9-JAN-1991	BROMOFLUOROBENZENE (EPA 8240)	92	72-129

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE
Project: (CA 12342) CHATSWORTH
Sample ID: B-2 @ 4'

Analysis No.: G-9100721-002
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: SOLID

Metal Prepared by EPA 3050 By NL
MERCURY Prepared by HG PREP By NL

Parameter	Units	Sample Result	Sample RL	Blank Result	Blank RL	Date Prepared	Date Analyzed	By
Antimony/TTLC (EPA 6010)	mg/kg	ND	6	ND	6	01/16/91	01/17/91	JW
Arsenic/TTLC (EPA 7061)	mg/kg	3.6	0.5	ND	.5	01/16/91	01/18/91	JW
Barium/TTLC (EPA 6010)	mg/kg	89.1	1	ND	1	01/16/91	01/17/91	JW
Beryllium/TTLC (EPA 6010)	mg/kg	0.35	0.2	ND	.2	01/16/91	01/17/91	JW
Cadmium/TTLC (EPA 6010)	mg/kg	1.6	0.5	ND	.5	01/16/91	01/17/91	JW
Chromium, Total/TTLC (EPA 6010)	mg/kg	15.6	1	ND	1	01/16/91	01/17/91	JW
Chromium, Hex/TTLC (EPA 7196)	mg/kg	ND	0.2	ND	.2	01/16/91	01/19/91	JC
Cobalt/TTLC (EPA 6010)	mg/kg	5.9	1	ND	1	01/16/91	01/17/91	JW
Copper/TTLC (EPA 6010)	mg/kg	21.0	2	ND	2	01/16/91	01/17/91	JW
Lead/TTLC (EPA 6010)	mg/kg	ND	5	ND	5	01/16/91	01/17/91	JW
Mercury/TTLC (EPA 7471)	mg/kg	ND	0.1	ND	.1	01/16/91	01/17/91	JW
Molybdenum/TTLC (EPA 6010)	mg/kg	3.4	2	ND	2	01/16/91	01/17/91	JW
Nickel/TTLC (EPA 6010)	mg/kg	17.4	4	ND	4	01/16/91	01/17/91	JW
Selenium/TTLC (EPA 7741)	mg/kg	ND	0.5	ND	.5	01/16/91	01/18/91	JW
Silver/TTLC (EPA 6010)	mg/kg	ND	1	ND	1	01/16/91	01/17/91	JW
Thallium/TTLC (EPA 6010)	mg/kg	ND	50	ND	50	01/16/91	01/17/91	JW
Titanium/TTLC (EPA 6010)	mg/kg	33.1	1	ND	1	01/16/91	01/17/91	JW
Zinc/TTLC (EPA 6010)	mg/kg	47.4	2	ND	2	01/16/91	01/17/91	JW

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100721-003
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: SOLID
Date Prepared: 9-JAN-1991
Prep Method: EPA 5030 By: GB
Date Analyzed: 9-JAN-1991 By: GB

Project: (CA 12342) CHATSWORTH
Sample ID: B-3 @ 25'

Purgeable Organics, EPA 8240

Units: ug/kg

Parameter	Sample Result	Sample RL	Blank Result	Blank RL
Chloromethane	ND	10	ND	10
Bromomethane	ND	10	ND	10
Vinyl Chloride	ND	10	ND	10
Chloroethane	ND	10	ND	10
Methylene Chloride	ND	5	ND	5
Acetone	ND	10	ND	10
Carbon Disulfide	ND	5	ND	5
Trichlorofluoromethane	ND	5	ND	5
1,1-Dichloroethene	ND	5	ND	5
1,1-Dichloroethane	ND	5	ND	5
Total 1,2-Dichloroethene	ND	5	ND	5
Chloroform	ND	5	ND	5
1,2-Dichloroethane	ND	5	ND	5
2-Butanone	ND	10	ND	10
1,1,1-Trichloroethane	ND	5	ND	5
Carbon Tetrachloride	ND	5	ND	5
Vinyl Acetate	ND	10	ND	10
Bromodichloromethane	ND	5	ND	5
1,2-Dichloropropane	ND	5	ND	5
cis-1,3-Dichloropropene	ND	5	ND	5
Trichloroethene	ND	5	ND	5
Dibromochloromethane	ND	5	ND	5
1,1,2-Trichloroethane	ND	5	ND	5
Benzene	ND	5	ND	5
trans-1,3-Dichloropropene	ND	5	ND	5
2-Chloroethylvinyl ether	ND	10	ND	10
Bromoform	ND	5	ND	5
4-Methyl-2-pentanone	ND	10	ND	10
2-Hexanone	ND	10	ND	10
Tetrachloroethene	ND	5	ND	5
1,1,2,2-Tetrachloroethane	ND	5	ND	5
Toluene	ND	5	ND	5
Chlorobenzene	ND	5	ND	5
Ethylbenzene	ND	5	ND	5
Styrene	ND	5	ND	5
Xylenes, Total	ND	5	ND	5

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100721-003
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: SOLID

Project: (CA 12342) CHATSWORTH

Purgeable Organics, EPA 8240 Surrogate Summary

Date	Parameter (Method)	Percent Recovery	Acceptable Range
9-JAN-1991	1,2 DICHLOROETHANE-D4 (EPA 8240)	94	80-121
9-JAN-1991	TOLUENE-D8 (EPA 8240)	96	78-125
9-JAN-1991	BROMOFLUOROBENZENE (EPA 8240)	94	72-129

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100721-004
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: SOLID
Date Prepared: 9-JAN-1991
Prep Method: EPA 5030
Date Analyzed: 9-JAN-1991
By: GB
By: GB

Project: (CA 12342) CHATSWORTH
Sample ID: B-4 @ 25'

Purgeable Organics, EPA 8240

Units: ug/kg

Parameter	Sample Result	Sample RL	Blank Result	Blank RL
Chloromethane	ND	10	ND	10
Bromomethane	ND	10	ND	10
Vinyl Chloride	ND	10	ND	10
Chloroethane	ND	10	ND	10
Methylene Chloride	ND	5	ND	5
Acetone	ND	10	ND	10
Carbon Disulfide	ND	5	ND	5
Trichlorofluoromethane	ND	5	ND	5
1,1-Dichloroethene	ND	5	ND	5
1,1-Dichloroethane	ND	5	ND	5
Total 1,2-Dichloroethene	ND	5	ND	5
Chloroform	ND	5	ND	5
1,2-Dichloroethane	ND	5	ND	5
2-Butanone	ND	10	ND	10
1,1,1-Trichloroethane	ND	5	ND	5
Carbon Tetrachloride	ND	5	ND	5
Vinyl Acetate	ND	10	ND	10
Bromodichloromethane	ND	5	ND	5
1,2-Dichloropropane	ND	5	ND	5
cis-1,3-Dichloropropene	ND	5	ND	5
Trichloroethene	ND	5	ND	5
Dibromochloromethane	ND	5	ND	5
1,1,2-Trichloroethane	ND	5	ND	5
Benzene	ND	5	ND	5
trans-1,3-Dichloropropene	ND	5	ND	5
2-Chloroethylvinyl ether	ND	10	ND	10
Bromoform	ND	5	ND	5
4-Methyl-2-pentanone	ND	10	ND	10
2-Hexanone	ND	10	ND	10
Tetrachloroethene	ND	5	ND	5
1,1,2,2-Tetrachloroethane	ND	5	ND	5
Toluene	ND	5	ND	5
Chlorobenzene	ND	5	ND	5
Ethylbenzene	ND	5	ND	5
Styrene	ND	5	ND	5
Xylenes, Total	ND	5	ND	5

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100721-004
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: SOLID

Project: (CA 12342) CHATSWORTH

Purgeable Organics, EPA 8240 Surrogate Summary

Date	Parameter (Method)	Percent Recovery	Acceptable Range
9-JAN-1991	1,2 DICHLOROETHANE-D4 (EPA 8240)	96	80-121
9-JAN-1991	TOLUENE-D8 (EPA 8240)	98	78-125
9-JAN-1991	BROMOFLUOROBENZENE (EPA 8240)	96	72-129

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100721-005
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: SOLID
Date Prepared: 9-JAN-1991
Prep Method: EPA 5030 By: GB
Date Analyzed: 9-JAN-1991 By: GB

Project: (CA 12342) CHATSWORTH
Sample ID: B-5 @ 25'

Purgeable Organics, EPA 8240

Units: ug/kg

Parameter	Sample Result	Sample RL	Blank Result	Blank RL
Chloromethane	ND	10	ND	10
Bromomethane	ND	10	ND	10
Vinyl Chloride	ND	10	ND	10
Chloroethane	ND	10	ND	10
Methylene Chloride	ND	5	ND	5
Acetone	ND	10	ND	10
Carbon Disulfide	ND	5	ND	5
Trichlorofluoromethane	ND	5	ND	5
1,1-Dichloroethene	ND	5	ND	5
1,1-Dichloroethane	ND	5	ND	5
Total 1,2-Dichloroethene	ND	5	ND	5
Chloroform	ND	5	ND	5
1,2-Dichloroethane	ND	5	ND	5
2-Butanone	ND	10	ND	10
1,1,1-Trichloroethane	ND	5	ND	5
Carbon Tetrachloride	ND	5	ND	5
Vinyl Acetate	ND	10	ND	10
Bromodichloromethane	ND	5	ND	5
1,2-Dichloropropane	ND	5	ND	5
cis-1,3-Dichloropropene	ND	5	ND	5
Trichloroethene	ND	5	ND	5
Dibromochloromethane	ND	5	ND	5
1,1,2-Trichloroethane	ND	5	ND	5
Benzene	ND	5	ND	5
trans-1,3-Dichloropropene	ND	5	ND	5
2-Chloroethylvinyl ether	ND	10	ND	10
Bromoform	ND	5	ND	5
4-Methyl-2-pentanone	ND	10	ND	10
2-Hexanone	ND	10	ND	10
Tetrachloroethene	ND	5	ND	5
1,1,2,2-Tetrachloroethane	ND	5	ND	5
Toluene	ND	5	ND	5
Chlorobenzene	ND	5	ND	5
Ethylbenzene	ND	5	ND	5
Styrene	ND	5	ND	5
Xylenes, Total	ND	5	ND	5

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100721-005
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: SOLID

Project: (CA 12342) CHATSWORTH

Purgeable Organics, EPA 8240 Surrogate Summary

Date	Parameter (Method)	Percent Recovery	Acceptable Range
9-JAN-1991	1,2 DICHLOROETHANE-D4 (EPA 8240)	99	80-121
9-JAN-1991	TOLUENE-D8 (EPA 8240)	99	78-125
9-JAN-1991	BROMOFLUOROBENZENE (EPA 8240)	97	72-129

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE
Project: (CA 12342) CHATSWORTH

Analysis No.: G-9100721-001/005
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: SOLID

Matrix Spike/Matrix Spike Duplicate Report

Sample Number	Parameter (Method)	Units	Observed Concentration			Amt. Spiked	% Recovery			% RPD
			Sample	MS	MSD		MS	MSD	Avg.	
9100801-002	TPH, EXTRACTABLE (DHS-ES)	mg/kg	ND	137	154	170	81	91	86	12
9100721-001	ANTIMONY (EPA 6010)	mg/kg	ND	341	354	500	68	71	70	4
9100721-001	BARIUM (EPA 6010)	mg/kg	112	1960	1990	2000	92	94	93	2
9100721-001	BERYLLIUM (EPA 6010)	mg/kg	0.44	43.5	44.7	50	86	89	87	3
9100721-001	CADMIUM (EPA 6010)	mg/kg	1.2	39.4	40.6	50	76	79	78	3
9100721-001	CHROMIUM (EPA 6010)	mg/kg	17.8	176	180	200	79	81	80	3
9100721-001	COBALT (EPA 6010)	mg/kg	7.7	406	418	500	80	82	81	3
9100721-001	COPPER (EPA 6010)	mg/kg	21.7	241	246	250	88	90	89	2
9100721-001	LEAD (EPA 6010)	mg/kg	ND	373	384	500	75	77	76	3
9100721-001	MOLYBDENUM (EPA 6010)	mg/kg	4.2	200	206	250	78	81	80	3
9100721-001	NICKEL (EPA 6010)	mg/kg	21.9	426	437	500	81	83	82	3
9100721-001	SILVER (EPA 6010)	mg/kg	ND	38.5	39.4	50	77	79	78	2
9100721-001	THALLIUM (EPA 6010)	mg/kg	ND	0	0	50	0	0	0	100*
9100721-001	VANADIUM (EPA 6010)	mg/kg	40.3	450	461	500	82	84	83	3
9100721-001	ZINC (EPA 6010)	mg/kg	52.9	435	442	500	76	78	77	2
9100721-001	ARSENIC (EPA 7061)	mg/kg	4.7	42.0	41.0	50.0	75	73	74	3
9100808-002	CHROMIUM, HEX/TTL (EPA 7196)	mg/L	ND	4.1	4.4	5	82	88	85	7
9100721-001	MERCURY (EPA 7471)	mg/L	0.021	0.210	0.210	0.175	108	108	108	0
9100721-001	SELENIUM (EPA 7741)	mg/kg	ND	18.0	20.5	25.0	72	82	77	13
9035531-007	1,1-DICHLOROETHENE (EPA 8240)	ug/kg	ND	59.7	60.9	50.0	119	122	121	2
9035531-007	TRICHLOROETHENE (EPA 8240)	ug/kg	ND	56.6	56.5	50.0	113	113	113	0
9035531-007	BENZENE (EPA 8240)	ug/kg	ND	61.8	58.5	50.0	124	117	120	6
9035531-007	TOLUENE (EPA 8240)	ug/kg	ND	64.5	61.5	50.0	129	123	126	5
9035531-007	CHLOROBENZENE (EPA 8240)	ug/kg	ND	56.2	55.8	50.0	112	112	112	1

*Value is outside of limits due to sample matrix interference.

Matrix Spike/Matrix Spike Duplicate Report Cross-Reference

QC Batch	Date	Parameter (Method)	Sample Nos.
9035531-007	2-JAN-1990	1,1-DICHLOROETHENE (EPA 8240)	G-9100721-001 G-9100721-002 G-9100721-003 G-9100721-004 G-9100721-005
		TRICHLOROETHENE (EPA 8240)	G-9100721-001 G-9100721-002 G-9100721-003 G-9100721-004 G-9100721-005
		BENZENE (EPA 8240)	G-9100721-001 G-9100721-002 G-9100721-003 G-9100721-004 G-9100721-005
		TOLUENE (EPA 8240)	G-9100721-001 G-9100721-002 G-9100721-003 G-9100721-004 G-9100721-005
		CHLOROBENZENE (EPA 8240)	G-9100721-001 G-9100721-002 G-9100721-003 G-9100721-004 G-9100721-005
9100721-001	17-JAN-1991	ANTIMONY (EPA 6010)	G-9100721-001 G-9100721-002
		BARIUM (EPA 6010)	G-9100721-001 G-9100721-002
		BERYLLIUM (EPA 6010)	G-9100721-001 G-9100721-002
		CADMIUM (EPA 6010)	G-9100721-001 G-9100721-002
		CHROMIUM (EPA 6010)	G-9100721-001 G-9100721-002
		COBALT (EPA 6010)	G-9100721-001 G-9100721-002
		COPPER (EPA 6010)	G-9100721-001 G-9100721-002
		LEAD (EPA 6010)	G-9100721-001 G-9100721-002
		MOLYBDENUM (EPA 6010)	G-9100721-001 G-9100721-002
		NICKEL (EPA 6010)	G-9100721-001 G-9100721-002
		SILVER (EPA 6010)	G-9100721-001 G-9100721-002
		THALLIUM (EPA 6010)	G-9100721-001 G-9100721-002

Matrix Spike/Matrix Spike Duplicate Report Cross-Reference

QC Batch	Date	Parameter (Method)	Sample Nos.
		VANADIUM (EPA 6010)	G-9100721-001
			G-9100721-002
		ZINC (EPA 6010)	G-9100721-001
			G-9100721-002
		ARSENIC (EPA 7061)	G-9100721-001
			G-9100721-002
		MERCURY (EPA 7471)	G-9100721-001
			G-9100721-002
		SELENIUM (EPA 7741)	G-9100721-001
			G-9100721-002
9100801-002	8-JAN-1991	TPH, EXTRACTABLE (DHS-ES)	G-9100721-001
			G-9100721-002
			G-9100721-003
			G-9100721-004
			G-9100721-005
9100808-002	19-JAN-1991	CHROMIUM, HEX/TTLC (EPA 7196)	G-9100721-001
			G-9100721-002

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE
Project: (CA 12342) CHATSWORTH

Analysis No.: G-9100721-001/005
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: SOLID

Laboratory Control Sample Report

QC Batch	Parameter (Method)	Amt. Spiked	Units	Avg. Spike Recov.	Acceptable Range	Rel. Pct. Diff.	Acceptable Range
L91009005	TPH, EXTRACTABLE (DHS-ES)	170	mg/kg	116.	60-120	1.	40
L91021001	ANTIMONY (EPA 6010)	1	mg/kg	88.	60-125	3.	25
L91021001	BARIUM (EPA 6010)	1	mg/kg	102.	65-125	1.	30
L91021001	BERYLLIUM (EPA 6010)	1	mg/kg	95.	60-126	1.	30
L91021001	CADMIUM (EPA 6010)	1	mg/kg	83.	63-126	3.	25
L91021001	CHROMIUM (EPA 6010)	1	mg/kg	90.	63-126	2.	30
L91021001	COBALT (EPA 6010)	1	mg/kg	88.	63-126	3.	35
L91021001	COPPER (EPA 6010)	1	mg/kg	96.	62-126	1.	30
L91021001	LEAD (EPA 6010)	1	mg/kg	88.	61-126	3.	30
L91021001	MOLYBDENUM (EPA 6010)	1	mg/kg	93.	61-126	2.	32
L91021001	NICKEL (EPA 6010)	1	mg/kg	87.	61-126	3.	25
L91021001	SILVER (EPA 6010)	1	mg/kg	83.	60-126	3.	30
L91021001	THALLIUM (EPA 6010)	1	mg/kg	82.	60-126	3.	30
L91021001	VANADIUM (EPA 6010)	1	mg/kg	91.	60-126	2.	25
L91021001	ZINC (EPA 6010)	1	mg/kg	86.	60-126	3.	30
1018013	ARSENIC (EPA 7061)	1.00	mg/kg	100.	50-127	0.	25
1019001	CHROMIUM, HEX/TTLC (EPA 7196)	.05	mg/kg	94.	60-130	4.	40
L91017043	MERCURY (EPA 7471)	0.0020	mg/kg	103.	51-125	5.	42
L91018020	SELENIUM (EPA 7741)	1.00	mg/kg	99.	45-128	9.	40
L91007019	1,1-DICHLOROETHENE (EPA 8240)	50.	ug/kg	106.	30-151	1.	36
L91007019	TRICHLOROETHENE (EPA 8240)	50.	ug/kg	107.	36-150	2.	33
L91007019	BENZENE (EPA 8240)	50.	ug/kg	100.	32-150	1.	35
L91007019	TOLUENE (EPA 8240)	50.	ug/kg	99.	34-151	4.	34
L91007019	CHLOROBENZENE (EPA 8240)	50.	ug/kg	98.	33-151	1.	35
L91017025	PH (EPA 9045)	9.18		100.	98-102	0.	1

*Limits calculated from the current Enseco-CRL database at a 99% confidence level.

Laboratory Control Sample Report Cross-Reference

QC Batch	Date	Parameter (Method)	Sample Nos.
L91007019	2-JAN-1991	1,1-DICHLOROETHENE (EPA 8240)	G-9100721-001 G-9100721-002 G-9100721-003 G-9100721-004 G-9100721-005
		TRICHLOROETHENE (EPA 8240)	G-9100721-001 G-9100721-002 G-9100721-003 G-9100721-004 G-9100721-005
		BENZENE (EPA 8240)	G-9100721-001 G-9100721-002 G-9100721-003 G-9100721-004 G-9100721-005
		TOLUENE (EPA 8240)	G-9100721-001 G-9100721-002 G-9100721-003 G-9100721-004 G-9100721-005
		CHLOROBENZENE (EPA 8240)	G-9100721-001 G-9100721-002 G-9100721-003 G-9100721-004 G-9100721-005
L91009005	8-JAN-1991	TPH, EXTRACTABLE (DHS-ES)	G-9100721-001 G-9100721-002 G-9100721-003 G-9100721-004 G-9100721-005
L91017025	17-JAN-1991	PH (EPA 9045)	G-9100721-001 G-9100721-002
L91017043	17-JAN-1991	MERCURY (EPA 7471)	G-9100721-001 G-9100721-002
L91018013	18-JAN-1991	ARSENIC (EPA 7061)	G-9100721-001 G-9100721-002
L91018020	18-JAN-1991	SELENIUM (EPA 7741)	G-9100721-001 G-9100721-002
L91019001	19-JAN-1991	CHROMIUM, HEX/TTLC (EPA 7196)	G-9100721-001 G-9100721-002
L91021001	17-JAN-1991	ANTIMONY (EPA 6010)	G-9100721-001 G-9100721-002
		BARIUM (EPA 6010)	G-9100721-001 G-9100721-002

Laboratory Control Sample Report Cross-Reference

QC Batch	Date	Parameter (Method)	Sample Nos.
		BERYLLIUM (EPA 6010)	G-9100721-001
			G-9100721-002
		CADMIUM (EPA 6010)	G-9100721-001
			G-9100721-002
		CHROMIUM (EPA 6010)	G-9100721-001
			G-9100721-002
		COBALT (EPA 6010)	G-9100721-001
			G-9100721-002
		COPPER (EPA 6010)	G-9100721-001
			G-9100721-002
		LEAD (EPA 6010)	G-9100721-001
			G-9100721-002
		MOLYBDENUM (EPA 6010)	G-9100721-001
			G-9100721-002
		NICKEL (EPA 6010)	G-9100721-001
			G-9100721-002
		SILVER (EPA 6010)	G-9100721-001
			G-9100721-002
		THALLIUM (EPA 6010)	G-9100721-001
			G-9100721-002
		VANADIUM (EPA 6010)	G-9100721-001
			G-9100721-002
		ZINC (EPA 6010)	G-9100721-001
			G-9100721-002

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100721-006
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: LIQUID
Date Prepared: 9-JAN-1991
Prep Method: EPA 5030
Date Analyzed: 9-JAN-1991
By: GB
By: GB

Project: (CA 12342) CHATSWORTH
Sample ID: GM-1 (TRIP BLANK)

Purgeable Organics, EPA 8240

Units: ug/L

Parameter	Sample Result	Sample RL	Blank Result	Blank RL
Chloromethane	ND	10	ND	10
Bromomethane	ND	10	ND	10
Vinyl Chloride	ND	10	ND	10
Chloroethane	ND	10	ND	10
Methylene Chloride	ND	5	ND	5
Acetone	ND	10	ND	10
Carbon Disulfide	ND	5	ND	5
Trichlorofluoromethane	ND	5	ND	5
1,1-Dichloroethene	ND	5	ND	5
1,1-Dichloroethane	ND	5	ND	5
1,2-Dichloroethene (Total)	ND	5	ND	5
Chloroform	ND	5	ND	5
1,2-Dichloroethane	ND	5	ND	5
2-Butanone	ND	10	ND	10
1,1,1-Trichloroethane	ND	5	ND	5
Carbon Tetrachloride	ND	5	ND	5
Vinyl Acetate	ND	10	ND	10
Bromodichloromethane	ND	5	ND	5
1,2-Dichloropropane	ND	5	ND	5
trans-1,3-Dichloropropene	ND	5	ND	5
Trichloroethene	ND	5	ND	5
Dibromochloromethane	ND	5	ND	5
1,1,2-Trichloroethane	ND	5	ND	5
Benzene	ND	5	ND	5
cis-1,3-Dichloropropene	ND	5	ND	5
2-Chloroethylvinyl ether	ND	10	ND	10
Bromoform	ND	5	ND	5
4-Methyl-2-pentanone	ND	10	ND	10
2-Hexanone	ND	10	ND	10
Tetrachloroethene	ND	5	ND	5
1,1,2,2-Tetrachloroethane	ND	5	ND	5
Toluene	ND	5	ND	5
Chlorobenzene	ND	5	ND	5
Ethylbenzene	ND	5	ND	5
Styrene	ND	5	ND	5
Xylenes, Total	ND	5	ND	5

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100721-006
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: LIQUID

Project: (CA 12342) CHATSWORTH

Purgeable Organics, EPA 8240 Surrogate Summary

Date	Parameter (Method)	Percent Recovery	Acceptable Range
9-JAN-1991	1,2-DICHLOROETHANE-D4 (EPA 8240-L)	101	79-118
9-JAN-1991	TOLUENE-D8 (EPA 8240-L)	101	81-120
9-JAN-1991	BROMOFLUOROBENZENE (EPA 8240-L)	101	79-130

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE
Project: (CA 12342) CHATSWORTH

Analysis No.: G-9100721-006
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: LIQUID

Matrix Spike/Matrix Spike Duplicate Report

Sample Number	Parameter (Method)	Units	Sample	Observed Concentration		Amt. Spiked	% Recovery			% RPD
				MS	MSD		MS	MSD	Avg.	
9036002-001	1,1-DICHLOROETHENE (EPA 8240-L)	ug/L	ND	52.6	52.7	50.0	105	105	105	0
9036002-001	TRICHLOROETHENE (EPA 8240-L)	ug/L	ND	55.0	49.5	50.0	110	99	105	11
9036002-001	BENZENE (EPA 8240-L)	ug/L	ND	49.4	44.4	50.0	99	89	94	11
9036002-001	TOLUENE (EPA 8240-L)	ug/L	ND	48.8	45.9	50.0	98	92	95	6
9036002-001	CHLOROBENZENE (EPA 8240-L)	ug/L	ND	50.6	46.6	50.0	101	93	97	8

Matrix Spike/Matrix Spike Duplicate Report Cross-Reference

QC Batch	Date	Parameter (Method)	Sample Nos.
9036002-001	8-JAN-1991	1,1-DICHLOROETHENE (EPA 8240-L)	G-9100721-006
		TRICHLOROETHENE (EPA 8240-L)	G-9100721-006
		BENZENE (EPA 8240-L)	G-9100721-006
		TOLUENE (EPA 8240-L)	G-9100721-006
		CHLOROBENZENE (EPA 8240-L)	G-9100721-006

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE
Project: (CA 12342) CHATSWORTH

Analysis No.: G-9100721-006
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: LIQUID

Laboratory Control Sample Report

QC Batch	Parameter (Method)	Amt. Spiked	Units	Avg. Spike Recov.	Acceptable Range	Rel. Pct. Diff.	Acceptable Range
L91011016	1,1-DICHLOROETHENE (EPA 8240-L)	50.0	ug/L	99.	28-153	3.	38
L91011016	TRICHLOROETHENE (EPA 8240-L)	50.0	ug/L	99.	29-152	1.	37
L91011016	BENZENE (EPA 8240-L)	50.0	ug/L	95.	28-152	2.	38
L91011016	TOLUENE (EPA 8240-L)	50.0	ug/L	93.	29-152	2.	37
L91011016	CHLOROBENZENE (EPA 8240-L)	50.0	ug/L	92.	29-152	1.	38

*Limits calculated from the current Enseco-CRL database at a 99% confidence level.

Laboratory Control Sample Report Cross-Reference

QC Batch	Date	Parameter (Method)	Sample Nos.
L91011016	8-JAN-1990	1,1-DICHLOROETHENE (EPA 8240-L)	G-9100721-006
		TRICHLOROETHENE (EPA 8240-L)	G-9100721-006
		BENZENE (EPA 8240-L)	G-9100721-006
		TOLUENE (EPA 8240-L)	G-9100721-006
		CHLOROBENZENE (EPA 8240-L)	G-9100721-006

Laboratory Report

GERAGHTY & MILLER
4931 BIRCH STREET
NEWPORT BEACH, CA 92660
ATTN: MS. DANA COYLE
Project: (CA 12342) CHATSWORTH

Analysis No.: G-9100721-001/006
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: SOLID

INITIAL CALIBRATION VERIFICATION SAMPLE REPORT

Source/ Lot	Analysis	True Value	CRL Value	% Recovery	Acceptance Limits
MT-255	Antimony (EPA 6010)	1.0	0.94	94	90 - 110
MT-255	Barium (EPA 6010)	1.0	0.98	98	90 - 110
MT-255	Beryllium (EPA 6010)	1.0	0.97	97	90 - 110
MT-255	Cadmium (EPA 6010)	1.0	0.95	95	90 - 110
MT-255	Chromium (EPA 6010)	1.0	0.99	99	90 - 110
MT-255	Cobalt (EPA 6010)	1.0	0.96	96	90 - 110
MT-255	Copper (EPA 6010)	1.0	0.99	99	90 - 110
MT-255	Lead (EPA 6010)	1.0	0.97	97	90 - 110
MT-255	Molybdenum (EPA 6010)	1.0	0.96	96	90 - 110
MT-255	Nickel (EPA 6010)	1.0	0.95	95	90 - 110
MT-255	Silver (EPA 6010)	1.0	0.96	96	90 - 110
MT-255	Vanadium (EPA 6010)	1.0	0.96	96	90 - 110
MT-255	Zinc (EPA 6010)	1.0	0.94	94	90 - 110
MT-255	Thallium (EPA 6010)	2.0	2.1	105	90 - 110
ICP-3 (ERA #1290)	Arsenic (EPA 7061)	1.0	0.94	94	90 - 110
ICP-3 (ERA #1290)	Selenium (EPA 7741)	10	10	100	90 - 110
MT-008	Mercury (EPA 7471)	5.0	4.6	92	80 - 120

Laboratory Report

GERAGHTY & MILLER
4931 BIRCH STREET
NEWPORT BEACH, CA 92660
ATTN: MS. DANA COYLE
Project: (CA 12342) CHATSWORTH

Analysis No.: G-9100721-001/006
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Sample Type: SOLID

CONTINUING CALIBRATION VERIFICATION SAMPLE REPORT

<u>Source/ Lot</u>	<u>Analysis</u>	<u>True Value</u>	<u>CRL Value</u>	<u>% Recovery</u>	<u>Acceptance Limits</u>
MT-255	Antimony (EPA 6010)	1.0	0.92	92	90 - 110
MT-255	Barium (EPA 6010)	1.0	0.98	98	90 - 110
MT-255	Beryllium (EPA 6010)	1.0	0.94	94	90 - 110
MT-255	Cadmium (EPA 6010)	1.0	0.96	96	90 - 110
MT-255	Chromium (EPA 6010)	1.0	0.96	96	90 - 110
MT-255	Cobalt (EPA 6010)	1.0	0.98	98	90 - 110
MT-255	Copper (EPA 6010)	1.0	0.99	99	90 - 110
MT-255	Lead (EPA 6010)	1.0	0.92	92	90 - 110
MT-255	Molybdenum (EPA 6010)	1.0	0.92	92	90 - 110
MT-255	Nickel (EPA 6010)	1.0	0.97	97	90 - 110
MT-255	Silver (EPA 6010)	1.0	0.94	94	90 - 110
MT-255	Vanadium (EPA 6010)	1.0	0.94	94	90 - 110
MT-255	Zinc (EPA 6010)	1.0	0.95	95	90 - 110
MT-255	Thallium (EPA 6010)	2.0	1.8	90	90 - 110
MT-006CS	Arsenic (EPA 7061)	4.0	4.0	100	90 - 110
MT-253	Selenium (EPA 7741)	10	10.1	101	90 - 110
MT-220	Mercury (EPA 7471)	5.0	4.8	96	80 - 120

Enseco - CRL

7440 Lincoln Way • Garden Grove, CA 92641
(714) 898-6370 • (213) 598-0458 • (800) LAB-1-CRL
FAX: (714) 891-5917

January 24, 1991

GERAGHTY & MILLER
17800 CASTLETON STREET, STE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100721-001/006
Date Sampled: 7-JAN-1991
Date Sample Rec'd: 7-JAN-1991
Project: (CA 12342) CHATSWORTH

Enclosed with this letter is the report on the chemical and physical analyses on the samples from ANALYSIS NO: G-9100721-001/006 shown above.

The samples were received by CRL in a chilled state, and with the chain-of-custody record attached.

Note that ND means not detected at the reporting limit expressed. The reporting limit is raised to reflect the dilution factor of the sample.

Solid samples are reported on "as received" basis.


Reviewed


Approved

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100812-001
Date Sampled: 8-JAN-1991
Date Sample Rec'd: 8-JAN-1991
Sample Type: SOLID
Date Prepared: 9-JAN-1991
Prep Method: EPA 5030 By: GB
Date Analyzed: 9-JAN-1991 By: GB

Project: (CA 12342) CHATSWORTH
Sample ID: B-6 @ 25'

Purgeable Organics, EPA 8240

Units: ug/kg

Parameter	Sample Result	Sample RL	Blank Result	Blank RL
Chloromethane	ND	10	ND	10
Bromomethane	ND	10	ND	10
Vinyl Chloride	ND	10	ND	10
Chloroethane	ND	10	ND	10
Methylene Chloride	ND	5	ND	5
Acetone	ND	10	ND	10
Carbon Disulfide	ND	5	ND	5
Trichlorofluoromethane	ND	5	ND	5
1,1-Dichloroethene	ND	5	ND	5
1,1-Dichloroethane	ND	5	ND	5
Total 1,2-Dichloroethene	ND	5	ND	5
Chloroform	ND	5	ND	5
1,2-Dichloroethane	ND	5	ND	5
2-Butanone	ND	10	ND	10
1,1,1-Trichloroethane	ND	5	ND	5
Carbon Tetrachloride	ND	5	ND	5
Vinyl Acetate	ND	10	ND	10
Bromodichloromethane	ND	5	ND	5
1,2-Dichloropropane	ND	5	ND	5
cis-1,3-Dichloropropene	ND	5	ND	5
Trichloroethene	ND	5	ND	5
Dibromochloromethane	ND	5	ND	5
1,1,2-Trichloroethane	ND	5	ND	5
Benzene	ND	5	ND	5
trans-1,3-Dichloropropene	ND	5	ND	5
2-Chloroethylvinyl ether	ND	10	ND	10
Bromoform	ND	5	ND	5
4-Methyl-2-pentanone	ND	10	ND	10
2-Hexanone	ND	10	ND	10
Tetrachloroethene	ND	5	ND	5
1,1,2,2-Tetrachloroethane	ND	5	ND	5
Toluene	ND	5	ND	5
Chlorobenzene	ND	5	ND	5
Ethylbenzene	ND	5	ND	5
Styrene	ND	5	ND	5
Xylenes, Total	ND	5	ND	5

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100812-001
Date Sampled: 8-JAN-1991
Date Sample Rec'd: 8-JAN-1991
Sample Type: SOLID

Project: (CA 12342) CHATSWORTH

Purgeable Organics, EPA 8240 Surrogate Summary

Date	Parameter (Method)	Percent Recovery	Acceptable Range
9-JAN-1991	1,2 DICHLOROETHANE-D4 (EPA 8240)	108	80-121
9-JAN-1991	TOLUENE-D8 (EPA 8240)	108	78-125
9-JAN-1991	BROMOFLUOROBENZENE (EPA 8240)	106	72-129

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100812-002
Date Sampled: 8-JAN-1991
Date Sample Rec'd: 8-JAN-1991
Sample Type: SOLID
Date Prepared: 9-JAN-1991
Prep Method: EPA 5030 By: GB
Date Analyzed: 9-JAN-1991 By: GB

Project: (CA 12342) CHATSWORTH
Sample ID: B-7 @ 25'

Purgeable Organics, EPA 8240

Units: ug/kg

Parameter	Sample Result	Sample RL	Blank Result	Blank RL
Chloromethane	ND	10	ND	10
Bromomethane	ND	10	ND	10
Vinyl Chloride	ND	10	ND	10
Chloroethane	ND	10	ND	10
Methylene Chloride	ND	5	ND	5
Acetone	ND	10	ND	10
Carbon Disulfide	ND	5	ND	5
Trichlorofluoromethane	ND	5	ND	5
1,1-Dichloroethene	ND	5	ND	5
1,1-Dichloroethane	ND	5	ND	5
Total 1,2-Dichloroethene	ND	5	ND	5
Chloroform	ND	5	ND	5
1,2-Dichloroethane	ND	5	ND	5
2-Butanone	ND	10	ND	10
1,1,1-Trichloroethane	5.2	5	ND	5
Carbon Tetrachloride	ND	5	ND	5
Vinyl Acetate	ND	10	ND	10
Bromodichloromethane	ND	5	ND	5
1,2-Dichloropropane	ND	5	ND	5
cis-1,3-Dichloropropene	ND	5	ND	5
Trichloroethene	ND	5	ND	5
Dibromochloromethane	ND	5	ND	5
1,1,2-Trichloroethane	ND	5	ND	5
Benzene	ND	5	ND	5
trans-1,3-Dichloropropene	ND	5	ND	5
2-Chloroethylvinyl ether	ND	10	ND	10
Bromoform	ND	5	ND	5
4-Methyl-2-pentanone	ND	10	ND	10
2-Hexanone	ND	10	ND	10
Tetrachloroethene	ND	5	ND	5
1,1,2,2-Tetrachloroethane	ND	5	ND	5
Toluene	ND	5	ND	5
Chlorobenzene	ND	5	ND	5
Ethylbenzene	ND	5	ND	5
Styrene	ND	5	ND	5
Xylenes, Total	ND	5	ND	5

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100812-002
Date Sampled: 8-JAN-1991
Date Sample Rec'd: 8-JAN-1991
Sample Type: SOLID

Project: (CA 12342) CHATSWORTH

Purgeable Organics, EPA 8240 Surrogate Summary

Date	Parameter (Method)	Percent Recovery	Acceptable Range
9-JAN-1991	1,2 DICHLOROETHANE-D4 (EPA 8240)	95	80-121
9-JAN-1991	TOLUENE-D8 (EPA 8240)	95	78-125
9-JAN-1991	BROMOFLUOROBENZENE (EPA 8240)	93	72-129

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100812-003
Date Sampled: 8-JAN-1991
Date Sample Rec'd: 8-JAN-1991
Sample Type: SOLID
Date Prepared: 9-JAN-1991
Prep Method: EPA 5030
Date Analyzed: 9-JAN-1991
By: GB
By: GB

Project: (CA 12342) CHATSWORTH
Sample ID: B-8 @ 15'

Purgeable Organics, EPA 8240

Units: ug/kg

Parameter	Sample Result	Sample RL	Blank Result	Blank RL
Chloromethane	ND	10	ND	10
Bromomethane	ND	10	ND	10
Vinyl Chloride	ND	10	ND	10
Chloroethane	ND	10	ND	10
Methylene Chloride	ND	5	ND	5
Acetone	ND	10	ND	10
Carbon Disulfide	ND	5	ND	5
Trichlorofluoromethane	ND	5	ND	5
1,1-Dichloroethene	ND	5	ND	5
1,1-Dichloroethane	ND	5	ND	5
Total 1,2-Dichloroethene	ND	5	ND	5
Chloroform	ND	5	ND	5
1,2-Dichloroethane	ND	5	ND	5
2-Butanone	ND	10	ND	10
1,1,1-Trichloroethane	ND	5	ND	5
Carbon Tetrachloride	ND	5	ND	5
Vinyl Acetate	ND	10	ND	10
Bromodichloromethane	ND	5	ND	5
1,2-Dichloropropane	ND	5	ND	5
cis-1,3-Dichloropropene	ND	5	ND	5
Trichloroethene	ND	5	ND	5
Dibromochloromethane	ND	5	ND	5
1,1,2-Trichloroethane	ND	5	ND	5
Benzene	ND	5	ND	5
trans-1,3-Dichloropropene	ND	5	ND	5
2-Chloroethylvinyl ether	ND	10	ND	10
Bromoform	ND	5	ND	5
4-Methyl-2-pentanone	ND	10	ND	10
2-Hexanone	ND	10	ND	10
Tetrachloroethene	ND	5	ND	5
1,1,2,2-Tetrachloroethane	ND	5	ND	5
Toluene	ND	5	ND	5
Chlorobenzene	ND	5	ND	5
Ethylbenzene	ND	5	ND	5
Styrene	ND	5	ND	5
Xylenes, Total	ND	5	ND	5

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100812-003
Date Sampled: 8-JAN-1991
Date Sample Rec'd: 8-JAN-1991
Sample Type: SOLID

Project: (CA 12342) CHATSWORTH

Purgeable Organics, EPA 8240 Surrogate Summary

Date	Parameter (Method)	Percent Recovery	Acceptable Range
9-JAN-1991	1,2 DICHLOROETHANE-D4 (EPA 8240)	103	80-121
9-JAN-1991	TOLUENE-D8 (EPA 8240)	102	78-125
9-JAN-1991	BROMOFLUOROBENZENE (EPA 8240)	95	72-129

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE
Project: (CA 12342) CHATSWORTH

Analysis No.: G-9100812-001/003
Date Sampled: 8-JAN-1991
Date Sample Rec'd: 8-JAN-1991
Sample Type: SOLID

Matrix Spike/Matrix Spike Duplicate Report

Sample Number	Parameter (Method)	Units	Sample	Observed Concentration		Amt. Spiked	% Recovery			% RPD
				MS	MSD		MS	MSD	Avg.	
9100812-001	TPH, EXTRACTABLE (DHS- ES)	mg/kg	ND	117	118	170	69	69	69	1
9035531-007	1,1-DICHLOROETHENE (EPA 8240)	ug/kg	ND	59.7	60.9	50.0	119	122	121	2
9035531-007	TRICHLOROETHENE (EPA 8240)	ug/kg	ND	56.6	56.5	50.0	113	113	113	0
9035531-007	BENZENE (EPA 8240)	ug/kg	ND	61.8	58.5	50.0	124	117	120	6
9035531-007	TOLUENE (EPA 8240)	ug/kg	ND	64.5	61.5	50.0	129	123	126	5
9035531-007	CHLOROBENZENE (EPA 8240)	ug/kg	ND	56.2	55.8	50.0	112	112	112	1

Matrix Spike/Matrix Spike Duplicate Report Cross-Reference

QC Batch	Date	Parameter (Method)	Sample Nos.
9035531-007	2-JAN-1990	1,1-DICHLOROETHENE (EPA 8240)	G-9100812-001 G-9100812-002 G-9100812-003
		TRICHLOROETHENE (EPA 8240)	G-9100812-001 G-9100812-002 G-9100812-003
		BENZENE (EPA 8240)	G-9100812-001 G-9100812-002 G-9100812-003
		TOLUENE (EPA 8240)	G-9100812-001 G-9100812-002 G-9100812-003
		CHLOROBENZENE (EPA 8240)	G-9100812-001 G-9100812-002 G-9100812-003
9100812-001	10-JAN-1991	TPH, EXTRACTABLE (DHS-ES)	G-9100812-001 G-9100812-002 G-9100812-003

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE
Project: (CA 12342) CHATSWORTH

Analysis No.: G-9100812-001/003
Date Sampled: 8-JAN-1991
Date Sample Rec'd: 8-JAN-1991
Sample Type: SOLID

Laboratory Control Sample Report

QC Batch	Parameter (Method)	Amt. Spiked	Units	Avg. Spike Recov.	Acceptable Range	Rel. Pct. Diff.	Acceptable Range
L91010027	TPH, EXTRACTABLE (DHS-ES)	170	mg/kg	78.	60-120	5.	40
L91007019	1,1-DICHLOROETHENE (EPA 8240)	50.	ug/kg	106.	30-151	1.	36
L91007019	TRICHLOROETHENE (EPA 8240)	50.	ug/kg	107.	36-150	2.	33
L91007019	BENZENE (EPA 8240)	50.	ug/kg	100.	32-150	1.	35
L91007019	TOLUENE (EPA 8240)	50.	ug/kg	99.	34-151	4.	34
L91007019	CHLOROBENZENE (EPA 8240)	50.	ug/kg	98.	33-151	1.	35

*Limits calculated from the current Enseco-CRL database at a 99% confidence level.

Laboratory Control Sample Report Cross-Reference

QC Batch	Date	Parameter (Method)	Sample Nos.
L91007019	2-JAN-1991	1,1-DICHLOROETHENE (EPA 8240)	G-9100812-001 G-9100812-002 G-9100812-003
		TRICHLOROETHENE (EPA 8240)	G-9100812-001 G-9100812-002 G-9100812-003
		BENZENE (EPA 8240)	G-9100812-001 G-9100812-002 G-9100812-003
		TOLUENE (EPA 8240)	G-9100812-001 G-9100812-002 G-9100812-003
		CHLOROBENZENE (EPA 8240)	G-9100812-001 G-9100812-002 G-9100812-003
L91010027	10-JAN-1991	TPH, EXTRACTABLE (DHS-ES)	G-9100812-001 G-9100812-002 G-9100812-003

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100812-004/004
Date Sampled: 8-JAN-1991
Date Sample Rec'd: 8-JAN-1991
Date Analyzed: 10-JAN-1991
9-JAN-1991

Sample Type: LIQUID

Project: (CA 12342) CHATSWORTH

Sample ID	TPH, Extractable mg/L DHS-EL	pH units EPA 9040
GM-3	ND(0.5)	9.3
Blank	ND(.5)	NA

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE
Project: (CA 12342) CHATSWORTH
Sample ID: GM-3

Analysis No.: G-9100812-004
Date Sampled: 8-JAN-1991
Date Sample Rec'd: 8-JAN-1991
Sample Type: LIQUID

Metals Prepared by EPA 3010 By NL
MERCURY Prepared by HG Prep By NL

Parameter	Units	Sample Result	Sample RL	Blank Result	Blank RL	Date Prepared	Date Analyzed	By
Arsenic, Recoverable (EPA 7061-L)	mg/L	ND	0.005	ND	.005	01/09/91	01/14/91	JW
Antimony, Recoverable (EPA 6010-L)	mg/L	ND	0.06	ND	.06	01/14/91	01/16/91	CV
Barium, Recoverable (EPA 6010-L)	mg/L	0.023	0.01	ND	.01	01/14/91	01/16/91	CV
Beryllium, Recoverable (EPA 6010-L)	mg/L	ND	0.002	ND	.002	01/14/91	01/16/91	CV
Cadmium, Recoverable (EPA 6010-L)	mg/L	ND	0.005	ND	.005	01/14/91	01/16/91	CV
Chromium, Recoverable (EPA 6010-L)	mg/L	0.017	0.011*	0.011	.01	01/14/91	01/16/91	CV
Chromium, Hex, Recoverable (EPA 7196)	mg/L	ND	0.02	ND	.02	01/09/91	01/11/91	JC
Cobalt, Recoverable (EPA 6010-L)	mg/L	ND	0.01	ND	.01	01/14/91	01/16/91	CV
Copper, Recoverable (EPA 6010-L)	mg/L	ND	0.02	ND	.02	01/14/91	01/16/91	CV
Lead, Recoverable (EPA 6010-L)	mg/L	ND	0.05	ND	.05	01/14/91	01/16/91	CV
Mercury, Recoverable (EPA 7470)	mg/L	ND	0.001	ND	.001	01/09/91	01/11/91	NL
Molybdenum, Recoverable (EPA 6010-L)	mg/L	ND	0.02	ND	.02	01/14/91	01/16/91	CV
Nickel, Recoverable (EPA 5010-L)	mg/L	ND	0.04	ND	.04	01/14/91	01/16/91	CV
Selenium, Recoverable (EPA 7741-L)	mg/L	ND	0.01	ND	.01	01/09/91	01/15/91	JW
Silver, Recoverable (EPA 5010-L)	mg/L	ND	0.01	ND	.01	01/14/91	01/16/91	CV
Thallium, Recoverable (EPA 5010-L)	mg/L	ND	0.5	ND	.5	01/14/91	01/16/91	CV
Titanium, Recoverable (EPA 6010-L)	mg/L	ND	0.01	ND	.01	01/14/91	01/16/91	CV
Zinc, Recoverable (EPA 5010-L)	mg/L	0.027	0.02	ND	.02	01/14/91	01/16/91	CV

* Higher detection limits due to high preparation blank.

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100812-004
Date Sampled: 8-JAN-1991
Date Sample Rec'd: 8-JAN-1991
Sample Type: LIQUID
Date Prepared: 9-JAN-1991
Prep Method: EPA 5030
Date Analyzed: 9-JAN-1991
By: GB
By: GB

Project: (CA 12342) CHATSWORTH
Sample ID: GM-3

Purgeable Organics, EPA 8240

Units: ug/L

Parameter	Sample Result	Sample RL	Blank Result	Blank RL
Chloromethane	ND	10	ND	10
Bromomethane	ND	10	ND	10
Vinyl Chloride	ND	10	ND	10
Chloroethane	ND	10	ND	10
Methylene Chloride	ND	5	ND	5
Acetone	ND	10	ND	10
Carbon Disulfide	ND	5	ND	5
Trichlorofluoromethane	ND	5	ND	5
1,1-Dichloroethene	ND	5	ND	5
1,1-Dichloroethane	ND	5	ND	5
1,2-Dichloroethene (Total)	ND	5	ND	5
Chloroform	ND	5	ND	5
1,2-Dichloroethane	ND	5	ND	5
2-Butanone	ND	10	ND	10
1,1,1-Trichloroethane	ND	5	ND	5
Carbon Tetrachloride	ND	5	ND	5
Vinyl Acetate	ND	10	ND	10
Bromodichloromethane	ND	5	ND	5
1,2-Dichloropropane	ND	5	ND	5
trans-1,3-Dichloropropene	ND	5	ND	5
Trichloroethene	ND	5	ND	5
Dibromochloromethane	ND	5	ND	5
1,1,2-Trichloroethane	ND	5	ND	5
Benzene	ND	5	ND	5
cis-1,3-Dichloropropene	ND	5	ND	5
2-Chloroethylvinyl ether	ND	10	ND	10
Bromoform	ND	5	ND	5
4-Methyl-2-pentanone	ND	10	ND	10
2-Hexanone	ND	10	ND	10
Tetrachloroethene	ND	5	ND	5
1,1,2,2-Tetrachloroethane	ND	5	ND	5
Toluene	ND	5	ND	5
Chlorobenzene	ND	5	ND	5
Ethylbenzene	ND	5	ND	5
Styrene	ND	5	ND	5
Xylenes, Total	ND	5	ND	5

Laboratory Report

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CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE

Analysis No.: G-9100812-004
Date Sampled: 8-JAN-1991
Date Sample Rec'd: 8-JAN-1991
Sample Type: LIQUID

Project: (CA 12342) CHATSWORTH

Purgeable Organics, EPA 8240 Surrogate Summary

Date	Parameter (Method)	Percent Recovery	Acceptable Range
9-JAN-1991	1,2-DICHLOROETHANE-D4 (EPA 8240-L)	92	79-118
9-JAN-1991	TOLUENE-D8 (EPA 8240-L)	97	81-120
9-JAN-1991	BROMOFLUOROBENZENE (EPA 8240-L)	94	79-130

Laboratory Report

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17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE
Project: (CA 12342) CHATSWORTH

Analysis No.: G-9100812-004
Date Sampled: 8-JAN-1991
Date Sample Rec'd: 8-JAN-1991
Sample Type: LIQUID

Matrix Spike/Matrix Spike Duplicate Report

Sample Number	Parameter (Method)	Units	Observed Concentration			Amt. Spiked	% Recovery			% RPD
			Sample	MS	MSD		MS	MSD	Avg.	
9035210-002	ANTIMONY (EPA 6010-L)	mg/L	ND	0.974	0.971	1	97	97	97	0
9035210-002	BARIUM (EPA 6010-L)	mg/L	0.045	1.12	1.12	1	108	108	108	0
9035210-002	BERYLLIUM (EPA 6010-L)	mg/L	ND	1.02	1.03	1	102	103	103	1
9035210-002	CADMIUM (EPA 6010-L)	mg/L	ND	0.904	0.904	1	90	90	90	0
9035210-002	CHROMIUM (EPA 6010-L)	mg/L	ND	1.04	1.03	1	104	103	104	1
9035210-002	COBALT (EPA 6010-L)	mg/L	ND	0.9901	0.987	1	99	99	99	0
9035210-002	COPPER (EPA 6010-L)	mg/L	ND	1.04	1.05	1	104	105	105	1
9035210-002	LEAD (EPA 6010-L)	mg/L	ND	0.979	0.969	1	98	97	97	1
9035210-002	MOLYBDENUM (EPA 6010-L)	mg/L	ND	1.02	1.03	1	102	103	103	1
9035210-002	NICKEL (EPA 6010-L)	mg/L	ND	1	1	1	100	100	100	0
9035210-002	SILVER (EPA 6010-L)	mg/L	ND	0.870	0.870	1	87	87	87	0
9035210-002	THALLIUM (EPA 6010-L)	mg/L	ND	0.972	0.923	1	97	92	95	5
9035210-002	VANADIUM (EPA 6010-L)	mg/L	ND	0.997	0.996	1	100	100	100	0
9035210-002	ZINC (EPA 6010-L)	mg/L	0.14	0.985	0.980	1	85	84	84	1
9100812-004	ARSENIC (EPA 7061-L)	mg/L	ND	.960	.940	1.00	96	94	95	2
9021-021	CHROMIUM, HEX, RECOVERABLE (EPA 7196)	mg/kg	ND	.0173	.0184	.02	87	92	89	6
9036010-001	MERCURY (EPA 7470)	mg/kg	.0003	.0022	.0021	.002	95	90	93	5
9100812-004	SELENIUM (EPA 7741-L)	mg/L	ND	.940	.930	1.00	94	93	94	1
9036002-001	1,1-DICHLOROETHENE (EPA 8240-L)	ug/L	ND	52.6	52.7	50.0	105	105	105	0
9036002-001	TRICHLOROETHENE (EPA 8240-L)	ug/L	ND	55.0	49.5	50.0	110	99	105	11
9036002-001	BENZENE (EPA 8240-L)	ug/L	ND	49.4	44.4	50.0	99	89	94	11
9036002-001	TOLUENE (EPA 8240-L)	ug/L	ND	48.8	45.9	50.0	98	92	95	6
9036002-001	CHLOROBENZENE (EPA 8240-L)	ug/L	ND	50.6	46.6	50.0	101	93	97	8

Matrix Spike/Matrix Spike Duplicate Report Cross-Reference

QC Batch	Date	Parameter (Method)	Sample Nos.
9100812-004	14-JAN-1991	ARSENIC (EPA 7061-L)	G-9100812-004
9035210-002	16-JAN-1991	ANTIMONY (EPA 6010-L)	G-9100812-004
		BARIUM (EPA 6010-L)	G-9100812-004
		BERYLLIUM (EPA 6010-L)	G-9100812-004
		CADMIUM (EPA 6010-L)	G-9100812-004
		CHROMIUM (EPA 6010-L)	G-9100812-004
		COBALT (EPA 6010-L)	G-9100812-004
		COPPER (EPA 6010-L)	G-9100812-004
		LEAD (EPA 6010-L)	G-9100812-004
		MOLYBDENUM (EPA 6010-L)	G-9100812-004
		NICKEL (EPA 6010-L)	G-9100812-004
		SILVER (EPA 6010-L)	G-9100812-004
		THALLIUM (EPA 6010-L)	G-9100812-004
		VANADIUM (EPA 6010-L)	G-9100812-004
		ZINC (EPA 6010-L)	G-9100812-004
9036002-001	8-JAN-1991	1,1-DICHLOROETHENE (EPA 8240-L)	G-9100812-004
		TRICHLOROETHENE (EPA 8240-L)	G-9100812-004
		BENZENE (EPA 8240-L)	G-9100812-004
		TOLUENE (EPA 8240-L)	G-9100812-004
		CHLOROBENZENE (EPA 8240-L)	G-9100812-004
9036010-001	14-JAN-1991	MERCURY (EPA 7470)	G-9100812-004
9100812-004	15-JAN-1991	SELENIUM (EPA 7741-L)	G-9100812-004
9101021-021	12-JAN-1991	CHROMIUM, HEX, RECOVERABLE (EPA 7196)	G-9100812-004

Laboratory Report

GERAGHTY & MILLER
17800 CASTLETON ST., SUITE 175
CITY OF INDUSTRY, CA 91748
ATTN: MS. DANA COYLE
Project: (CA 12342) CHATSWORTH

Analysis No.: G-9100812-004
Date Sampled: 8-JAN-1991
Date Sample Rec'd: 8-JAN-1991
Sample Type: LIQUID

Laboratory Control Sample Report

QC Batch	Parameter (Method)	Amt. Spiked	Units	Avg. Spike Recov.	Acceptable Range	Rel. Pct. Diff.	Acceptable Range
L91010028	TPH, EXTRACTABLE (DHS-EL)	13	mg/L	69.	60-120	0.	40
L91017017	ANTIMONY (EPA 6010-L)	1	mg/L	95.	70-130	1.	30
L91017017	BARIUM (EPA 6010-L)	1	mg/L	108.	71-121	1.	20
L91017017	BERYLLIUM (EPA 6010-L)	1	mg/L	100.	70-120	0.	20
L91017017	CADMIUM (EPA 6010-L)	1	mg/L	88.	73-119	0.	20
L91017017	CHROMIUM (EPA 6010-L)	1	mg/L	103.	71-123	1.	20
L91017017	COBALT (EPA 6010-L)	1	mg/L	98.	71-122	0.	20
L91017017	COPPER (EPA 6010-L)	1	mg/L	104.	62-126	1.	30
L91017017	LEAD (EPA 6010-L)	1	mg/L	96.	68-125	2.	20
L91017017	MOLYBDENUM (EPA 6010-L)	1	mg/L	101.	69-124	1.	20
L91017017	NICKEL (EPA 6010-L)	1	mg/L	99.	70-124	1.	20
L91017017	SILVER (EPA 6010-L)	1	mg/L	86.	70-123	1.	20
L91017017	THALLIUM (EPA 6010-L)	1	mg/L	96.	80-120	1.	19
L91017017	VANADIUM (EPA 6010-L)	1	mg/L	98.	69-123	0.	20
L91017017	ZINC (EPA 6010-L)	1	mg/L	92.	70-128	0.	20
1014018	ARSENIC (EPA 7061-L)	1.00	mg/L	102.	78-120	8.	20
1012002	CHROMIUM, HEX, RECOVERABLE (EPA 7196)	.02	mg/L	100.	60-130	5.	40
L91014005	MERCURY (EPA 7470)	.002	mg/L	108.	51-130	5.	29
L91015008	SELENIUM (EPA 7741-L)	1.00	mg/L	104.	55-128	0.	27
L91011016	1,1-DICHLOROETHENE (EPA 8240-L)	50.0	ug/L	99.	28-153	3.	38
L91011016	TRICHLOROETHENE (EPA 8240-L)	50.0	ug/L	99.	29-152	1.	37
L91011016	BENZENE (EPA 8240-L)	50.0	ug/L	95.	28-152	2.	38
L91011016	TOLUENE (EPA 8240-L)	50.0	ug/L	93.	29-152	2.	37
L91011016	CHLOROBENZENE (EPA 8240- L)	50.0	ug/L	92.	29-152	1.	38
L91009033	PH (EPA 9040)	9.18	Units	100.	98-102	0.	1

*Limits calculated from the current Enseco-CRL database at a 99% confidence level.

Laboratory Control Sample Report Cross-Reference

QC Batch	Date	Parameter (Method)	Sample Nos.
L91009033	9-JAN-1991	PH (EPA 9040)	G-9100812-004
L91010028	10-JAN-1991	TPH, EXTRACTABLE (DHS-EL)	G-9100812-004
L91011016	8-JAN-1990	1,1-DICHLOROETHENE (EPA 8240-L)	G-9100812-004
		TRICHLOROETHENE (EPA 8240-L)	G-9100812-004
		BENZENE (EPA 8240-L)	G-9100812-004
		TOLUENE (EPA 8240-L)	G-9100812-004
		CHLOROBENZENE (EPA 8240-L)	G-9100812-004
L91012002	12-JAN-1991	CHROMIUM, HEX, RECOVERABLE (EPA 7196)	G-9100812-004
L91014005	14-JAN-1991	MERCURY (EPA 7470)	G-9100812-004
L91014018	14-JAN-1991	ARSENIC (EPA 7061-L)	G-9100812-004
L91015008	15-JAN-1991	SELENIUM (EPA 7741-L)	G-9100812-004
L91017017	16-JAN-1991	ANTIMONY (EPA 6010-L)	G-9100812-004
		BARIUM (EPA 6010-L)	G-9100812-004
		BERYLLIUM (EPA 6010-L)	G-9100812-004
		CADMIUM (EPA 6010-L)	G-9100812-004
		CHROMIUM (EPA 6010-L)	G-9100812-004
		COBALT (EPA 6010-L)	G-9100812-004
		COPPER (EPA 6010-L)	G-9100812-004
		LEAD (EPA 6010-L)	G-9100812-004
		MOLYBDENUM (EPA 6010-L)	G-9100812-004
		NICKEL (EPA 6010-L)	G-9100812-004
		SILVER (EPA 6010-L)	G-9100812-004
		THALLIUM (EPA 6010-L)	G-9100812-004
		VANADIUM (EPA 6010-L)	G-9100812-004
		ZINC (EPA 6010-L)	G-9100812-004

Laboratory Report

GERAGHTY & MILLER
4931 BIRCH STREET
NEWPORT BEACH, CA 92660
ATTN: MS. DANA COYLE
Project: (CA 12342) CHATSWORTH

Analysis No.: G-9100812-001/004
Date Sampled: 8-JAN-1991
Date Sample Rec'd: 8-JAN-1991
Sample Type: SOLID

INITIAL CALIBRATION VERIFICATION SAMPLE REPORT

Source/ Lot	Analysis	True Value	CRL Value	% Recovery	Acceptance Limits
MT-255	Antimony (EPA 6010)	1.0	0.97	97	90 - 110
MT-255	Barium (EPA 6010)	1.0	1.0	100	90 - 110
MT-255	Beryllium (EPA 6010)	1.0	1.0	100	90 - 110
MT-255	Cadmium (EPA 6010)	1.0	0.94	94	90 - 110
MT-255	Chromium (EPA 6010)	1.0	1.0	100	90 - 110
MT-255	Cobalt (EPA 6010)	1.0	0.98	98	90 - 110
MT-255	Copper (EPA 6010)	1.0	1.0	100	90 - 110
MT-255	Lead (EPA 6010)	1.0	0.99	99	90 - 110
MT-255	Molybdenum (EPA 6010)	1.0	0.99	99	90 - 110
MT-255	Nickel (EPA 6010)	1.0	0.97	97	90 - 110
MT-255	Silver (EPA 6010)	1.0	0.95	95	90 - 110
MT-255	Vanadium (EPA 6010)	1.0	0.98	98	90 - 110
MT-255	Zinc (EPA 6010)	1.0	0.95	95	90 - 110
MT-255	Thallium (EPA 6010)	2.0	2.0	100	90 - 110
ICP-3 (ERA #1290)	Arsenic (EPA 7061)	1.0	1.02	102	80 - 120
ICP-3 (ERA #1290)	Selenium (EPA 7741)	10	9.3	9.3	90 - 110
MT-008 ICV	Mercury (EPA 7471)	5.0	4.8	96	80 - 120

Laboratory Report

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4931 BIRCH STREET
NEWPORT BEACH, CA 92660
ATTN: MS. DANA COYLE
Project: (CA 12342) CHATSWORTH

Analysis No.: G-9100812-001/004
Date Sampled: 8-JAN-1991
Date Sample Rec'd: 8-JAN-1991
Sample Type: SOLID

CONTINUING CALIBRATION VERIFICATION SAMPLE REPORT

Source/ Lot	Analysis	True Value	CRL Value	% Recovery	Acceptance Limits
MT-255	Antimony (EPA 6010)	1.0	0.99	99	90 - 110
MT-255	Barium (EPA 6010)	1.0	1.06	106	90 - 110
MT-255	Beryllium (EPA 6010)	1.0	1.0	100	90 - 110
MT-255	Cadmium (EPA 6010)	1.0	0.94	94	90 - 110
MT-255	Chromium (EPA 6010)	1.0	1.08	108	90 - 110
MT-255	Cobalt (EPA 6010)	1.0	1.0	100	90 - 110
MT-255	Copper (EPA 6010)	1.0	1.07	107	90 - 110
MT-255	Lead (EPA 6010)	1.0	0.98	98	90 - 110
MT-255	Molybdenum (EPA 6010)	1.0	1.01	101	90 - 110
MT-255	Nickel (EPA 6010)	1.0	1.0	100	90 - 110
MT-255	Silver (EPA 6010)	1.0	0.95	95	90 - 110
MT-255	Vanadium (EPA 6010)	1.0	1.01	101	90 - 110
MT-255	Zinc (EPA 6010)	1.0	0.94	94	90 - 110
MT-255	Thallium (EPA 6010)	2.0	2.07	104	90 - 110
MT-006CS	Arsenic (EPA 7061)	4.0	4.4	110	90 - 110
MT-253CS	Selenium (EPA 7741)	10	10.9	109	90 - 110
MT-220CS	Mercury (EPA 7471)	5.0	4.7	94	80 - 120